EVIDENTIARY HEARING

BEFORE THE

CALIFORNIA ENERGY RESOURCES CONSERVATION

AND DEVELOPMENT COMMISSION

In the Matter of:)	
)	Docket No
Application for Certification)	99-AFC-2
for the Three Mountain Power)	
Project [Ogden Energy, Inc.])	

RADISSON HOTEL

SISKIYOU AND CASCADE ROOMS

1830 HILLTOP DRIVE

REDDING, CALIFORNIA

TUESDAY, DECEMBER 19, 2000

9:00 a.m.

Reported By: Valorie Phillips Contract No. 170-99-001

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

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COMMITTEE MEMBERS PRESENT

William J. Keese, Chairman, Presiding Member

Cynthia Praul, Commissioner Advisor

Ed Bouillon, Hearing Officer

STAFF PRESENT

Caryn Holmes, Staff Counsel

Richard Buell, Project Manager

Dick Ratliff

APPLICANT

Scott M. Turner Nixon Peabody, Attorneys at Law

Michael H. Zischke Morrison & Foerster

INTERVENOR

Marcy Crockett Burney Resource Group

PUBLIC ADVISER

Roberta Mendonca

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1	PROCEEDINGS
2	PRESIDING MEMBER KEESE: Once again, I
3	am Bill Keese, Chairing the Committee. Mr. Ed
4	Bouillon is conducting the hearing, and Cynthia
5	Praul, my advisor, joins us Cynthia Praul joins
6	us momentarily.
7	We'll continue the hearing. Mr.
8	Bouillon
9	HEARING OFFICER BOUILLON: When we
10	concluded yesterday we had Linda Bond on the
11	stand, and we were discussing Exhibit 80, and we
12	gave the parties overnight to examine those
13	conditions and see if that further cross
14	examination. However, given some of the pre-trial
15	discussions that we had, and the presence in our
16	courtroom of a wonderful baby, we're going to call
17	at this time Maria Ellis, the Burney Resource
18	Group's witness on Biological Resources.
19	(Thereupon Maria Ellis was, by
20	the reporter, sworn to tell the
21	truth, the whole truth, and
22	nothing but the truth.)
23	THE WITNESS: I do.
24	MS. CROCKETT: Are we ready to proceed?
25	///

1	TESTIMONY OF
2	MARIA ELLIS
3	called as a witness on behalf of the Intervenor,
4	having first been duly sworn, was examined and
5	testified as follows:
6	DIRECT EXAMINATION
7	BY MS. CROCKETT:
8	Q Dr. Ellis, do you are you familiar
9	with the testimony that has been submitted for the
10	record?
11	A Yes.
12	Q Is it true and correct, to the best of
13	your knowledge?
14	A Yes, although I I do have a
15	correction or addition that I would like to make.
16	Is this the time to do that?
17	Q It is the time for corrections.
18	A In the Applicant's rebuttal to my
19	testimony, they they pointed out two areas that
20	they thought were notably lacking in my testimony,
21	and
22	MR. TURNER: Excuse me, Mr. Bouillon.
23	This doesn't seem to be a correction to her direct
24	testimony. It seems to be rebuttal to the

Applicant's rebuttal. I think it's inappropriate.

1 HEARING OFFICER BOUILLON: Is she going

- 2 to correct something that's in her testimony, or
- 3 does she want to add to it?
- 4 BY MS. CROCKETT:
- 5 Q Dr. Ellis?
- 6 A They pointed out that --
- 7 HEARING OFFICER BOUILLON: No, no.
- 8 THE WITNESS: -- that I was lacking in
- 9 -- in response, and I wanted to correct that.
- 10 They had two items that they -- they thought were
- 11 notably absent, that I should correct.
- 12 MR. TURNER: That's surrebuttal, Mr.
- Bouillon. I don't believe it's appropriate.
- 14 HEARING OFFICER BOUILLON: No, no.
- 15 She's not trying to correct what she wrote. She's
- trying to add to what she wrote, it sounds like to
- 17 me.
- MS. CROCKETT: Okay. Thank you.
- 19 HEARING OFFICER BOUILLON: There's
- 20 nothing wrong with what you wrote, is there?
- 21 THE WITNESS: No.
- 22 HEARING OFFICER BOUILLON: Good.
- 23 Continue.
- 24 BY MS. CROCKETT:
- 25 Q Was this -- was your testimony prepared

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with your -- to the best of your professional
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- 2 knowledge?
- 3 A Yes.
- 4 MS. CROCKETT: Thank you. The witness
- 5 is ready for cross.
- 6 HEARING OFFICER BOUILLON: Before we
- 7 begin cross examination, I just want to make sure
- 8 that what I have from Ms. Ellis is the testimony
- 9 we're speaking of at the present time.
- 10 I received a document dated November the
- 11 27th and docketed that same day, purporting to be
- 12 Testimony of Jeff Cook and Maria Ellis for the
- 13 Burney Resource Group, and the testimony of Maria
- 14 Ellis itself consists of four single-space
- 15 typewritten pages.
- 16 MS. CROCKETT: That should be correct.
- 17 HEARING OFFICER BOUILLON: And those
- 18 four pages, her declaration about the truth of it,
- 19 and her attached statement of qualifications,
- 20 consisting of three additional pages --
- MS. CROCKETT: That's correct.
- 22 HEARING OFFICER BOUILLON: -- will
- collectively be marked as Exhibit Number 82.
- 24 (Thereupon Exhibit Number 82
- was marked for identification.)

- proceed, Counsel. Counsel?
- 3 MR. TURNER: Thank you, Mr. Bouillon.
- 4 CROSS EXAMINATION
- 5 BY MR. TURNER:
- 6 Q Good morning, Dr. Ellis.
- 7 A Good morning.
- 8 Q Congratulations on your very nice baby.
- 9 A Thank you.
- 10 Q You reviewed the Biological testimony
- 11 that was submitted by Three Mountain Power on
- 12 December 1st, did you not?
- 13 A The Biological testimony submitted on
- 14 December 1st? I reviewed their -- their
- 15 Biological Assessment, and I reviewed -- yeah, the
- 16 testimony and the rebuttal.
- 17 Q So would it be accurate to say that you
- 18 reviewed the 25 page document entitled Testimony
- 19 -- Direct Testimony on Biological Resources
- sponsored by Mr. Garcia, Ms. Chainey-Davis, Mr.
- Jackman, and Mr. McFadden?
- 22 A Actually, I -- I will say that I have
- 23 spent more time reviewing the Biological
- 24 Assessment that was presented earlier -- I don't
- 25 know the date -- and the rebuttal to my testimony,

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than I did to the direct testimony. I've been a
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- 2 little busy since December 1st.
- 4 cognizant of that.
- If I were to ask you to accept, subject
- 6 to check, that at page 16 of that testimony --
- 7 A Jeff has it.
- 8 Q Would you like a copy of the testimony?
- 9 A Oh --
- 10 Q I can provide you one, or --
- 11 A Sure.
- 12 Q Would that be easier?
- 13 A That would be easier. Jeff has his
- 14 hands full.
- 15 Q I would direct your attention, Dr.
- 16 Ellis, to the second full paragraph, the sentence
- 17 beginning, "The Shasta crayfish is not
- documented." Do you see that?
- 19 A Yes.
- 20 Q You don't have any basis for disagreeing
- 21 with that statement, do you?
- 22 A No, although I have not surveyed many of
- 23 those springs for crayfish. And to my knowledge,
- they have never been surveyed for crayfish.
- 25 Q But to the extent the sentence refers to

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1 not documented to occur, you're not aware of any
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- 2 documentation indicating there are Shasta crayfish
- 3 --
- 4 A Correct.
- 5 Q -- in those areas. I'm now referring,
- 6 Dr. Ellis, to the third page of your direct
- 7 testimony. And in particular, to the carry-over
- 8 paragraph, the second page.
- 9 A The which paragraph?
- 10 Q The carry-over paragraph from the second
- 11 page.
- 12 A Okay.
- 13 Q There, on page 3, at the -- at the top,
- 14 you suggest, do you not, that the area of proposed
- impacts from the Three Mountain Power Project
- should be revised to include Crystal Lake?
- 17 A Yes, I do.
- 18 Q In April 1998, you and Mr. Cook
- 19 finalized a report entitled "Survey of Shasta
- 20 Crayfish and Other Sensitive Aquatic Species in
- 21 the Lower Hat Creek Drainage"; correct?
- 22 A Yes.
- 23 Q And in the survey described in that
- 24 report, you indicated that you surveyed Crystal
- 25 Lake; correct?

- 1 A Correct.
- 2 Q Am I correct in stating that in that
- 3 report, you go on to state that most of the
- 4 shorelines of Crystal Lake were coded as, quote,
- 5 erosion, close quote, and that virtually 100
- 6 percent of the shoreline was exposed to cattle
- 7 grazing?
- 8 A At that time that was true. That is no
- 9 longer the case. There have not been cattle
- 10 grazing that area for two years now, and there
- 11 will not be cattle grazing that area. PG&E has
- 12 ceased the grazing lease, and the area is -- is
- 13 recovering nicely.
- 14 Q In the conclusion to that report, you
- indicate in your summary that the impacts on
- 16 special status species in the Hat Creek drainage,
- 17 which includes Crystal Lake, I believe, you
- 18 categorize four impacts on special status species
- 19 within Crystal Lake. One is sedimentation and
- 20 sediment transport; correct?
- 21 A Uh-huh.
- 22 Q Another is cattle grazing and associated
- 23 impacts, which include the introduction of -- of
- sediment to the lake; correct?
- 25 A Uh-huh.

1 Q And it's that one that you just said you

- believe has been taken care of by PG&E's agreement
- 3 to not allow grazing there; correct?
- 4 A Right.
- 5 Q The third you listed as signal crayfish
- 6 and other introduced species; correct?
- 7 A Correct.
- 8 Q And the fourth you introduced as anglers
- 9 wading at the Crystal Lake outflow; correct?
- 10 A Right. Which has also been addressed
- 11 since that time, by Fish and Game.
- 12 Q With respect to the signal crayfish, you
- note that, in -- in this report, the 1998 report,
- 14 you note that signal crayfish, and I'm quoting
- from your report, can be predators, competitors,
- 16 and carriers of potential pathogens and parasites
- of the Shasta crayfish; correct?
- 18 A Potential carriers. Yes.
- 19 Q Now, in that same passage of your direct
- testimony, on page 3 again, top of the page, you
- 21 note that Crystal Lake has a known population of
- 22 Shasta crayfish; correct?
- 23 A Correct.
- Q And you state in your 1998 report, do
- 25 you not, that Shasta crayfish in Crystal Lake

1 probably number in the low one hundreds now;

2 correct?

6

8

9

10

11

- 3 A That is probably correct.
- Q You also state in that same report, do
 you not, that Shasta crayfish in Crystal Lake have

decreased by an order of magnitude since 1978.

- 7 A Correct.
 - Q Am I correct in saying that you have concluded, as a result of your work on the Shasta crayfish, that the greatest current threat to its continued existence is the signal crayfish?
- That is the conclusion that I have -- I 12 13 have drawn previously. And that would still be my 14 conclusion, but I would -- I would say that -- and 15 it is in the recovery plan, that anything that -that impacts the discharge of springs has the 16 17 ability to -- to wipe out populations of Shasta 18 crayfish much quicker than signal crayfish do. 19 For Crystal Lake, it's dropped in an order of 20 magnitude since '78, but, interestingly, Shasta 21 crayfish have survived sympatrically, which means 22 in coexisting with signal crayfish in that site.
- 23 If something did impact either the 24 quality or quantity of discharge from the springs, 25 that could have a -- a very large effect, and it

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1 could be a very rapid effect.
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- Q But I believe you just said that you

 stand by your conclusion expressed in your

 doctoral dissertation, and in the recovery plan,

 which I believe you wrote the draft of, that the

 current greatest threat to the continued existence
- 8 A I stand by my -- my comment that -- that 9 when I wrote those --

of the Shasta crayfish is the signal crayfish.

- 10 Q Would you --
- 11 A -- and I --
- my -- I'm entitled to an answer to my question.
- 14 A The answer --
- 15 Q You can elaborate on redirect, if you 16 care to.
- 17 A The answer to your question is that
- 18 based on -- on the knowledge at the time, I would
- 19 stand by that conclusion. Anything that would
- 20 impact the springs would also be of -- of equal or
- 21 greater, because it would have a more immediate
- 22 impact. At the time that I wrote it, there were
- 23 no projects pending that -- that would seem to --
- 24 to be threatening either the quality or quantity
- of discharge in the springs.

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1 (Inaudible asides.)
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- 2 MR. TURNER: Excuse me, Mr. Bouillon. I
- 3 think Mr. Zischke may have walked out
- 4 inadvertently with something I was going to turn
- 5 to next.
- 6 (Pause.)
- 7 MR. TURNER: Oh, I'm sorry. I have it
- 8 here. Never mind. I do have it. When you're
- 9 ready, Mr. Bouillon, I can proceed.
- 10 HEARING OFFICER BOUILLON: Go ahead.
- 11 BY MR. TURNER:
- 12 Q Dr. Ellis, on page 2 of your direct
- testimony, paragraph 2-A, the last sentence of
- that paragraph. Do you have that?
- 15 A Yes.
- 16 Q You would agree with me that that
- 17 passage contains a conclusion regarding hydrology;
- 18 correct?
- 19 A Yes.
- 20 HEARING OFFICER BOUILLON: I'm sorry,
- 21 Counsel. I couldn't hear the question.
- MR. TURNER: I was asking Dr. Ellis, Mr.
- Bouillon, if the last sentence of paragraph 2-A on
- 24 page 2 of her direct testimony is a conclusion
- 25 regarding hydrology. And Dr. Ellis answered yes.

1 HEARING OFFICER BOUILLON: (Okay.
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- 2 BY MR. TURNER:
- 3 Q Similarly, Dr. Ellis, on page 2, in
- 4 paragraph, in Section B, the second paragraph --
- 5 no, the first sentence of Section 2-B, actually,
- 6 the sentence beginning the Three Mountain Power
- 7 Project has the potential to negatively impact the
- 8 hydrology. Again, that's a hydrology based
- 9 statement; correct?
- 10 A Not all of it, no.
- 11 Q But the part that relates to impact the
- 12 hydrology of the inner mountain area is a
- hydrology conclusion, is it not?
- 14 A It's a very basic hydrology, and it
- 15 states that it would have the potential to
- 16 negatively impact, which was supported by the
- 17 Staff's Assessment.
- 18 Q On the bottom of page 2, let me direct
- 19 you to the last sentence on the page, which
- 20 carries over to the top of page 3. And in
- 21 particular, the first, second, and third sentences
- of that paragraph. Everything but the last
- 23 sentence, actually, of that paragraph.
- 24 The statements in that passage that I've
- just referenced, those statements contain

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1 hydrogeological conclusions, do they not?
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- 2 A This is the -- the sentence that starts 3 on the second page and carries over to the
- 4 paragraph you already asked me questions about?
- 5 Q Yes. With the exception of the last 6 sentence, which discusses the known population of
- 7 Shasta crayfish in Crystal Lake. The remainder of
- 8 that paragraph is a -- a set of hydrogeologic
- 9 conclusions.
- 10 A Well, they're not conclusions. It --
- 11 O Statements.
- 12 A -- suggests. They're based on -- on
- 13 hydrogeologic assessments made by Fox and by the
- 14 Staff, yes.
- Q And -- but not by you?
- 16 A No. No, I'm reiterating points that
- 17 have been -- been made by -- by Fox and by the
- 18 Staff in Soil and Water Resources.
- 19 Q On page 3 of your testimony, paragraph
- 20 2-C, the second paragraph for that section. The
- 21 first, second, and -- and third sentences of that
- paragraph, the ones beginning, the maximum rate,
- 23 the one beginning this is also the time, and the
- third, by averaging the water use over a 12 month
- 25 period, et cetera. You would agree with me that

those statements are hydrogeologic based

- 2 statements; correct?
- 3 A Those are -- are statements of -- of
- 4 hydrology that are based on -- on conclusions made
- 5 by the Soil and Water Resources -- Staff for Soil
- 6 and Water Resources. Yes.
- 7 Q So, again, these are not your
- 8 conclusions. You're basically repeating what you
- 9 understand others' conclusions to be?
- 10 A I'm -- I'm supporting the Final Staff
- 11 Assessment on Soil and Water Resources, testimony
- 12 by Richard Sapudar and Linda Bond. Yes.
- 13 Q But these are not your conclusions;
- these are their conclusions.
- 15 A I'm concurring with them, based on -- on
- my knowledge and understanding. I am a scientist.
- 17 I am not a hydrologist. I've never claimed to be
- 18 a hydrologist. But I do have a reasonable grasp
- 19 of critical thinking. I can read reports and
- 20 understand them, and I am concurring and
- 21 supporting the testimony by the Staff on Soil and
- 22 Water Resources. Yes.
- 23 Q The bottom of page 3, your item number
- 3, this is in paragraph --
- 25 A Uh-huh.

- 2 statement, too, contains a conclusion regarding
- 3 the hydrology of the area; correct? Whether it's
- 4 yours or not. I'm not taking issue with whose
- 5 statement it is, I'm just asking you if that's a
- 6 hydrogeologic conclusion that you're --
- 7 A I am -- I am reiterating that the level
- 8 of uncertainty and general lack and depth of
- 9 understanding of the hydrology of the area and the
- 10 likely impacts on the springs and the biota they
- 11 support, is an issue. Yes.
- 12 Q But you did tell me a moment ago that
- you're not holding yourself out as an expert in
- 14 hydrology --
- 15 A And I --
- 16 Q -- and hydrogeology.
- 17 A -- I never have. All I've done is ask
- some simple questions that have never been
- 19 answered.
- MR. TURNER: That's all I have, Mr.
- 21 Bouillon.
- 22 HEARING OFFICER BOUILLON: Thank you.
- Ms. Holmes?
- MS. HOLMES: No cross.
- 25 HEARING OFFICER BOUILLON: Ms. Crockett,

- do you have any redirect?
- MS. CROCKETT: Yes, I do. Thank you.
- 3 REDIRECT EXAMINATION
- 4 BY MS. CROCKETT:
- 5 Q Dr. Ellis, in the questions that were 6 posed to you on the lower Hat Creek, do you still 7 stand by your decision that the Crystal Lake area
- 8 should be included in the impact area for the
- 9 Three Mountain Project?
- 10 A Yes, I do. And that conclusion was also
- 11 supported in the testimony by the Staff on Soil
- 12 and Water Resources. They conclude that Crystal
- 13 Lake should be included in the springs that have
- the potential to be impacted.
- 15 Q And under the greatest threat to the
- 16 Shasta crayfish, you had -- they talked about
- 17 sedimentation and anglers that had been addressed.
- 18 But since that time in that report, you say there
- 19 are other threats now.
- 20 A One of the --
- Q Or a potential.
- 22 A There's the potential for other threats,
- and it's something that came up when I was writing
- the recovery plan. It was honestly things that I
- 25 didn't -- I didn't think of initially. Big

1 picture impacts to the springs, such as geothermal

- 2 development in the Medicine Lake Highlands, came
- 3 up, actually when I was writing the draft, and --
- 4 and that had the potential for -- and still has
- 5 the potential for a very large impact. It could
- 6 wipe out the majority of Shasta crayfish in the
- 7 Fall River if something went wrong, because that's
- 8 the recharge area for the springs.
- 9 Similarly, Three Mountain Power has the
- 10 potential to impact the discharge in the springs,
- 11 and that could have a significantly negative
- impact on the crayfish.
- 13 Q You just stated that the recharge area
- 14 would be the mineral -- excuse me -- Medicine Lake
- 15 area?
- 16 A Medicine Lake Highlands is the recharge
- 17 area for the Fall River Springs.
- 18 Q How far away is that from Crystal Lake?
- 19 A That's very far, but it's not the
- 20 recharge area for Crystal Lake. Crystal Lake's
- 21 recharge area is the Lassen Highlands.
- 22 Q The Lassen Highlands.
- 23 A And that's supported by Rose's
- 24 dissertation and -- and research, and the
- 25 hydraulic -- hydrology paper.

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1 Q And at this point, you still concur with
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- 2 Staff that there is input from Hat Creek into the
- 3 Burney Basin.
- 4 A Yes, I support the Staff's assessment,
- 5 and -- and Dr. Rose's assessment, that there is
- 6 input from Hat Creek into the Burney Basin.
- 7 Q You have never stated that you were a
- 8 hydrologist, and that you are a scientist with
- 9 critical thinking training, and that you could
- 10 read reports, and therefore you do stand by your
- 11 previous statements in your testimony.
- 12 A If I understand what you just said,
- 13 yeah. I've never stated that I was a hydrologist.
- I have stated that I am a scientist and that I
- 15 have the ability to -- to do critical thinking,
- 16 and to read reports, understand them, and -- and
- make comments, judgments based -- based on them.
- 18 As well as to find flaws, areas where conclusions
- or assumptions are made that are not supported by
- 20 data, inadequacies of data.
- 21 Q Is there any -- is there anything in
- 22 your testimony in the area of inadequacies or --
- let me rephrase that.
- 24 With more clarification of the impact on
- 25 the springs, how would we achieve that?

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1
                   How would we achieve more clarification
 2
         on the impact of the springs? Well, I've thought
 3
         from the beginning that -- that -- well, first,
 4
         that the burden of proof should lie with the
 5
         Applicant, and the Applicant should provide
 6
         adequate data to determine both the extent of the
         impacts, as well as the -- the area of impact, as
 8
         well as the extent of the impacts in those areas.
 9
                   And the best way to do that would've
10
         been to -- to do a full-scale study on the
11
         hydrology of the area. Lawrence Livermore and
         Associates would've been -- Lawrence Livermore
12
13
         would've been the -- Tim Rose and Lee Davisson
14
         would've been the logical people to do that,
15
         because they had already done research in the
         area. That would've brought us a lot closer than
16
17
         what we are now.
18
                   And the studies that the Applicant has
19
         done, I don't believe bring us any closer to
         answering those questions.
20
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- 20 answering those questions.

 21 Q In your professional opinion, what would
 22 you like to see happen to quantify the springs and
- their habitat before pumping?
- A I believe that as a Condition of
 Certification, that the -- that there needs to --

the Applicant needs to hire someone to collect
enough baseline data to accurately characterize
the base flows of the springs potentially affected
by the Three Mountain Power Project. And those
springs would be the ones outlined by the Staff in
the Soil and Water Resources on page 92, at the

7 top.

The Salmon Springs, the three Salmon

Springs, Rim of the Lake Springs, Sand Pit Road

Springs, Hat Creek Park South Spring, Canal

Spring, and Rocky Ledge Spring, and Crystal Lake,

should also be included in this group, because it

appears to be hydrologically connected to the

Burney aquifer, as indicated by groundwater

measurements and contours developed by Three

Mountain Power.

And -- and this should include any seasonal trends in -- in the springs, if present, which was argued by Three Mountain Power in their rebuttal to -- to Jeffrey Cook's testimony. They argue that there were seasonal trends in the springs, and that's a whole new aspect that has not been addressed or thought of. In general, I think we think the springs don't have a lot of seasonal discharge, but the Applicant has argued

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1 that they do. In which case, we need to document
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- 2 that, so that should be part of the baseline data
- 3 collection.
- 4 Second, I think there needs to be an
- 5 inventory of all aquatic and terrestrial mollusks,
- 6 amphibians, and crayfish present in the springs,
- 7 and that the methodology to do that inventory
- 8 needs to follow the standard protocols outlined by
- 9 U.S. Forest Service and BLM. I think those two
- 10 conditions need to be Conditions of Certification
- 11 before the -- any construction on the project
- 12 begins.
- MS. CROCKETT: Thank you. Burney
- 14 Resource Group is finished with this witness.
- MR. TURNER: Mr. Bouillon, perhaps the
- 16 Committee has questions, but I have just one
- follow-up based on Ms. Crockett's redirect.
- 18 Dr. Ellis, are you familiar with -- I'm
- 19 sorry.
- 20 HEARING OFFICER BOUILLON: Ms. Ellis,
- 21 let me ask
- 22 HEARING OFFICER BOUILLON: Ms. Ellis,
- 23 let me ask you -- we have a Biological Assessment
- 24 that you claim is inadequate. And as I understood
- 25 your redirect testimony just a moment ago, you

1 tried to list the things that need to be done to

- 2 make that study -- assessment adequate; is that --
- 3 is that correct?
- 4 THE WITNESS: That is correct. Either
- 5 to make that assessment adequate, or -- or to be
- done prior to the project, as a baseline
- 7 monitoring, because how else can you determine
- 8 what the impacts of the project are if you don't
- 9 have the baseline data.
- 10 HEARING OFFICER BOUILLON: Is that true
- 11 whether or not we include Crystal Lake in the
- 12 area?
- 13 THE WITNESS: Yes. That is true whether
- or not we include Crystal Lake.
- 15 HEARING OFFICER BOUILLON: Is that true
- 16 whether or not you're correct in your adoption of
- 17 the opinions of others regarding the hydrology of
- 18 the area?
- 19 THE WITNESS: It's true until there is
- 20 consensus about the hydrology of the area. If
- 21 there were consensus among the experts on -- on
- 22 what the hydrological conditions of the area, what
- 23 the area of impact is, and the extent of those
- impacts, then -- well, depending on what -- what
- 25 those conclusions were. If the conclusions were

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1 no impact, I wouldn't -- I wouldn't be here.
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- 2 But there is not consensus. I mean,
- 3 that's --
- 4 HEARING OFFICER BOUILLON: When you say
- 5 there is not consensus --
- 6 THE WITNESS: -- very clear.
- 7 HEARING OFFICER BOUILLON: Excuse me.
- 8 When you say there's not a consensus, which
- 9 experts are you speaking of, collectively? Name
- 10 all of them, please. The ones you say are --
- 11 THE WITNESS: Okay.
- 12 HEARING OFFICER BOUILLON: -- among whom
- there is no consensus.
- 14 THE WITNESS: Okay. There's not
- 15 consensus among -- Staff does not agree with --
- 16 with the assessment of -- of Three Mountain Power
- 17 and their methodology for getting there. Dr. Rose
- does not agree. There's not consensus among --
- among the hydrologists with the Applicant.
- 20 HEARING OFFICER BOUILLON: Are you
- 21 saying that Dr. Rose does not agree with the
- 22 Staff?
- 23 THE WITNESS: No. Well -- no. No. I'm
- 24 saying that -- that the Applicant has put forward
- one -- one side, or their opinion, and there is

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1 not consensus with either the Staff or Dr. Rose.
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- 2 HEARING OFFICER BOUILLON: And if the
- 3 Applicant and the Staff were to agree, would we
- 4 then have consensus?
- 5 THE WITNESS: I think if the Applicant
- 6 and the Staff and Dr. Rose agreed, then we would
- 7 have consensus.
- 8 HEARING OFFICER BOUILLON: Counsel.
- 9 MR. TURNER: I have just two
- 10 follow-up --
- 11 THE WITNESS: Which --
- 12 MR. TURNER: -- questions.
- 13 RECROSS EXAMINATION
- 14 BY MR. TURNER:
- 15 Q Dr. Ellis, are you familiar with the
- document that was marked yesterday as Exhibit 79,
- 17 entitled Stipulation Between Three Mountain Power
- 18 and California Energy Commission Staff, relating
- 19 to the impact areas of Soils and Water and
- 20 Biological Resources?
- 21 A One moment.
- MS. CROCKETT: I'm not sure Dr. Fox --
- 23 excuse me, Dr. Ellis had that data. The Burney
- 24 Resource Group, primarily myself, has that
- 25 stipulation. If she could see a copy of that?

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1 Have you provided her a copy?
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- 2 HEARING OFFICER BOUILLON: I'm looking
- 3 for mine at the moment.
- 4 MS. CROCKETT: I have mine -- Mr.
- 5 McFadden appears to have it.
- 6 (Inaudible asides.)
- 7 BY MR. TURNER:
- 8 Q You've seen that before, Dr. Ellis?
- 9 A Yes, I have. But I would like to --
- 10 Q My question was have you seen that
- 11 document, Dr. Ellis.
- 12 A Yes.
- 13 Q The second question I have for you is in
- 14 response to one of Ms. Crockett's redirect. You
- 15 identified two areas of study that you feel would
- 16 add to the understanding of these issues. Prior
- 17 to your appearance here today, in response to her
- 18 redirect, had you ever offered in a writing in
- 19 this proceeding those two study areas?
- 20 A I've verbally stated them. I have never
- 21 written them.
- MR. TURNER: Thank you. That's all I
- have.
- 24 HEARING OFFICER BOUILLON: Based on
- 25 those two questions, do you have any further redirect?

1 MS. CROCKETT: Yes, I do, just one

- 2 question.
- 3 FURTHER REDIRECT EXAMINATION
- 4 BY MS. CROCKETT:
- 5 Q Dr. Ellis, would it be fair to say that
- 6 the -- that your recommendation for studies was an
- 7 ongoing evaluation of data submitted by multiple
- 8 parties, and things still not resolved, that you
- 9 finally came to these conclusions?
- 10 A That is -- that is correct. I had hoped
- 11 that the Biological Assessment would -- would more
- 12 adequately address the issues than it did.
- MS. CROCKETT: Thank you.
- MR. TURNER: One last question, Mr.
- 15 Bouillon.
- 16 FURTHER RECROSS EXAMINATION
- 17 BY MR. TURNER:
- 18 Q Dr. Ellis, in response to the question
- 19 that Ms. Crockett just asked you, I'm going to ask
- 20 you did it occur to you to include those
- 21 recommendations that you just offered on redirect
- 22 in your direct written filed testimony in this
- 23 case? Because you did not offer them in this.
- 24 And that was a -- a shortcoming on my
- 25 part. I was due to go into labor momentarily. I

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1 wrote the testimony early, before I -- even the
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- 2 Final Staff Assessment was out, because the baby
- 3 could come at any moment. It was two weeks late.
- 4 And I didn't think I'd be writing it while I was
- 5 in labor.
- 6 MR. TURNER: That's all I have, Mr.
- 7 Bouillon.
- 8 MS. CROCKETT: One clarification on
- 9 timing. Her testimony was submitted prior to
- 10 Staff's --
- 11 HEARING OFFICER BOUILLON: That's a
- 12 matter of record.
- MS. CROCKETT: It's a matter of record.
- 14 Thank you.
- 15 HEARING OFFICER BOUILLON: And she also
- 16 said that. She wrote it prior to receiving the
- 17 FSA. I think she just said that.
- MS. CROCKETT: Great. Thank you.
- 19 HEARING OFFICER BOUILLON: Ms. Holmes,
- do you have any questions?
- MS. HOLMES: No, I don't.
- 22 HEARING OFFICER BOUILLON: Would you
- like to offer her testimony?
- MS. CROCKETT: I would like to offer her
- 25 testimony, and also since the hydrology study by

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1 Dr. Fox of the area was submitted by the Burney
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- 2 Resource Group, we also have a copy of that that
- 3 we'd like to offer as an exhibit, if it needs to
- 4 be offered. It's already -- I'm not sure if it's
- 5 already in the testimony, but Dr. Ellis does refer
- 6 to Dr. Fox's study, Staff refers to it, and we
- 7 would like to -- the Joint Intervenors want us to
- 8 make sure that that is entered into evidence, as
- 9 well.
- 10 HEARING OFFICER BOUILLON: As I
- 11 understand it, that's a study that never got into
- 12 final form. Is that correct?
- MS. CROCKETT: That's correct, but
- 14 Staff --
- 15 HEARING OFFICER BOUILLON: Wait, wait.
- 16 Wait. And it is also -- several versions of the
- draft, which may or may not have been docketed,
- but it is a study that has been relied upon by
- 19 members of the Staff and by your witnesses. Is
- 20 that correct? As a basis for their own
- 21 conclusions?
- MS. CROCKETT: And so stipulated by Dr.
- Fox in her declaration.
- MS. HOLMES: Mr. Bouillon, Staff relied
- on the raw data that Dr. Fox collected, and it's

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1 that raw data that is identified in the
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- 2 declaration that Dr. Fox -- that Dr. Fox
- 3 authenticated.
- 4 HEARING OFFICER BOUILLON: I'm aware of
- 5 that.
- 6 MS. HOLMES: Okay.
- 7 HEARING OFFICER BOUILLON: The -- we
- 8 have filed -- I believe that -- we have accepted
- 9 as an exhibit that declaration, and therefore, in
- 10 effect, her testimony as to the accuracy of the
- 11 factual information in that report, as opposed to
- the opinions in that report.
- MS. CROCKETT: Correct.
- 14 HEARING OFFICER BOUILLON: And both your
- 15 witnesses, Staff's witnesses, and the Applicant's
- 16 witnesses, for that matter, are free to rely on
- 17 those facts in forming their opinions, which they
- have put into evidence, or will be putting into
- 19 evidence. And to consider even Ms. Fox's
- 20 background opinions as the context in which to
- 21 form their own opinions, that does not make the
- document itself admissible, unfortunately.
- 23 But you can make reference to it, as
- they have, and we will take it for what it's
- worth, but we are not making her report of her

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opinions a part of this case.
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- MS. CROCKETT: We would -- could we so stipulate that in her declaration she stipulates to the facts and the accuracy of the data, and that we would submit the report only under those conditions, that so stated in Dr. Fox's
- 7 stipulation, to the accuracy of the data.
- 8 HEARING OFFICER BOUILLON: If that -- if
 9 that data is otherwise incorporated into someone's
 10 testimony, it's in that testimony. And so it -11 we already have it.
- MS. HOLMES: I think that the purpose
 that we saw in having the declaration was that we
 wanted to make sure that the raw data that Dr. Fox
 collected became a part of the record, and that's
 what we sought to have introduced and which was
 admitted yesterday. Her declaration was admitted
 as Exhibit 81.
- My understanding was that that meant
 that the raw data that's referenced in the
 declaration is now part of the record. Staff used
 that raw data in drawing its own conclusions on
 hydrology.
- 24 HEARING OFFICER BOUILLON: I understand 25 that. And that raw data is incorporated within

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1 your -- your own testimony, is it not?
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- MS. HOLMES; Well, it's relied upon
- 3 within our own testimony. I wouldn't say it's
- 4 incorporated into our own testimony.
- 5 HEARING OFFICER BOUILLON: My point is
- 6 you don't have to make an exhibit out of every
- 7 reference you use to gather data.
- 8 MS. HOLMES: Correct.
- 9 HEARING OFFICER BOUILLON: For instance,
- 10 when you -- sometimes when you file testimony, you
- list the whole bibliography of where you got
- 12 information, such as United States Geological
- 13 Service, Fish and Wildlife Service publications.
- We don't make exhibits of every one of those
- documents, and we're not making an exhibit of Dr.
- 16 Fox's document. But we are taking -- we are aware
- 17 that the raw data is a part of this case, insofar
- as it is incorporated by any party.
- 19 (Inaudible asides.)
- 20 HEARING OFFICER BOUILLON: Are there --
- 21 Ms. Crockett, let me ask you. Are there specific
- 22 pieces of raw data in that draft report upon what
- you want to rely, that have not been brought up in
- this proceeding in anybody's testimony?
- MS. CROCKETT: Yes, there is, and that

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1 was why in our -- in our subpoena, we wanted Dr.
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- 2 Fox present to explain the facts of her data. And
- 3 that would've been why we wanted her here, and I
- 4 think we explained that in our subpoena.
- 5 Consequently, there are points made, strictly
- facts that are in the report of Dr. Fox, raw data
- 7 used that are there.
- 8 HEARING OFFICER BOUILLON: Can -- in all
- 9 the testimony you have offered, can you give me an
- 10 example of what's in that report that you cannot
- 11 -- you don't feel you can use unless that report
- is made an exhibit?
- MS. CROCKETT: Very quickly, one of them
- 14 would be the global meteoric water line. I think
- they differ substantially from -- from the Dames
- 16 and Moore report using the plotted data. And I
- 17 think -- I am not going to present myself as an
- 18 hydrogolist, but it would show a different
- 19 scientific plotting of the data. And --
- 20 HEARING OFFICER BOUILLON: Is that a
- 21 matter of fact, or a matter of opinion?
- 22 MS. CROCKETT: I think the plotting of
- 23 the line -- now, I would require a scientist to do
- that. It's the data that I would refer to.
- 25 HEARING OFFICER BOUILLON: Now, do I

1 understand you to be presenting Mr. Cook, who is a

- 2 hydrologist?
- 3 MS. CROCKETT: Mr. Cook is not a
- 4 hydrologist. He is a geomorphologist. And he
- 5 will explain that -- excuse me. Mr. Cook, have
- 6 I --
- 7 HEARING OFFICER BOUILLON: No, wait,
- 8 wait. You don't --
- 9 MS. CROCKETT: -- stated that correctly?
- 10 I'm just checking on his certification. I don't
- 11 think Mr. Cook has presented himself as a
- 12 geologist.
- 13 HEARING OFFICER BOUILLON: I'll tell you
- 14 what. Let's --
- MS. CROCKETT: Or a hydrologist.
- 16 HEARING OFFICER BOUILLON: -- let's
- defer the ruling on that until after we've had Mr.
- 18 Cook on the stand.
- MS. CROCKETT: Thank you.
- 20 HEARING OFFICER BOUILLON: Okay. I
- 21 don't believe the raw data in that report, one way
- or the other, affects Ms. Ellis' testimony.
- MS. CROCKETT: The -- the only raw data
- in that report is that Dr. Cook does review the --
- Dr. Ellis reviews Dr. Fox's report, and sees the

data with reference -- I'm choosing my words very

- 2 carefully to state a fact -- that the data
- 3 supports, due to the negative oxygen 18 levels,
- 4 Dr. Rose's evaluation of the hydrology of the
- 5 area. And Dr. Cook --
- 6 HEARING OFFICER BOUILLON: Ms.
- 7 Crockett, you really miss the point. This witness
- 8 is not a hydrologist, and she is not offering any
- 9 of her own opinions on hydrology.
- MS. CROCKETT: Okay.
- 11 HEARING OFFICER BOUILLON: And she's not
- going to offer anybody else's opinions as her own,
- 13 either. All right?
- MS. CROCKETT: Thank you.
- 15 THE WITNESS: I did quote the Fox report
- in my testimony. If, I mean --
- MS. CROCKETT: It was just referenced.
- 18 I thought I saw it --
- 19 THE WITNESS: It appears the water from
- 20 Hat Creek basin enters the Burney basin south of
- 21 Brush Mountain.
- 22 HEARING OFFICER BOUILLON: Okay.
- 23 Counsel for the Applicant --
- MS. CROCKETT: The Fox report, Fox 2000,
- is on page -- oh, I'm sorry.

1	HEARING OFFICER BOUILLON: Counsel for
2	the Applicant was clear made specific
3	references to those passages to determine that, in
4	fact, they were hydrological opinions, and they
5	were not she was not expressing that opinion
6	herself, but, rather, using the opinions of
7	others.
8	MS. CROCKETT: Okay. Thank you.
9	HEARING OFFICER BOUILLON: So we'll
10	defer a ruling on we won't we will neither
11	mark nor admit or deny that exhibit at this time,
12	and I think that concludes this witness's
13	everyone agree?
14	MS. CROCKETT: Burney Resource
15	HEARING OFFICER BOUILLON: Ms. Ellis,
16	you're excused. And we'll call Mr. Cook.
17	MS. CROCKETT: Thank you.
18	Could we take a moment or two?
19	DR. ELLIS: Change the baby.
20	(Thereupon Jeffrey Cook was, by the
21	reporter, sworn to tell the truth,
22	the whole truth, and nothing but
23	the truth.)
24	THE WITNESS: Yes, I do.
25	///

1	TESTIMONY OF
2	JEFFREY COOK
3	called as a witness on behalf of Intervenor,
4	having been first duly sworn, was examined and
5	testified as follows:
6	DIRECT EXAMINATION

- 7 BY MS. CROCKETT:
- 9 that was submitted in your name to this hearing?
- 10 A Yes, I am.
- 11 Q Is it true and correct, to the best of
- 12 your professional knowledge?
- 13 A Yes, it is.
- 14 Q Are there any corrections at this time?
- 15 A There are no corrections.
- MS. CROCKETT: Thank you. The witness
- is ready for cross.
- 18 HEARING OFFICER BOUILLON: Applicant, do
- 19 you have any --
- 20 MR. TURNER: No questions, Your Honor.
- 21 We're content with our rebuttal.
- 22 HEARING OFFICER BOUILLON: Ms. Holmes.
- MS. HOLMES: No questions.
- MS. CROCKETT: I guess that doesn't
- leave me any recross.

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1 (Laughter.)
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- 2 HEARING OFFICER BOUILLON: That's
- 3 correct.
- 4 I had -- my outline indicated that the
- 5 Applicant had 120 minutes.
- 6 MS. CROCKETT: And they took that
- 7 yesterday.
- 8 HEARING OFFICER BOUILLON: They just set
- 9 a new record for speed.
- MS. CROCKETT: Are we finished with Mr.
- 11 Cook?
- 12 HEARING OFFICER BOUILLON: I haven't
- even marked his -- his testimony yet.
- MS. CROCKETT: I'm sorry. May we -- we
- would like to present his testimony.
- 16 HEARING OFFICER BOUILLON: We're going
- 17 to mark his testimony as --
- MS. CROCKETT: Okay.
- 19 HEARING OFFICER BOUILLON: -- next in
- order, which is Number 83. And since it's in the
- 21 same package as Maria Ellis', I will assume that I
- 22 am correct in -- six pages of testimony, his
- 23 declaration, and his -- three pages of
- 24 qualifications will collectively be marked Exhibit
- 25 83.

1	(Thereupon Exhibit Number 83 was
2	marked for identification.)
3	MS. CROCKETT: That's correct. Thank
4	you.
5	HEARING OFFICER BOUILLON: And are you
6	offering that at this time?
7	MS. CROCKETT: We are offering his
8	testimony to be submitted.
9	HEARING OFFICER BOUILLON: It will be
10	accepted.
11	(Thereupon Exhibit Number 83 was
12	received into evidence.)
13	HEARING OFFICER BOUILLON: If I might
14	have just a moment.
15	(Pause.)
16	HEARING OFFICER BOUILLON: Mr. Cook, is
17	there raw data in that draft report of Dr. Fox
18	upon which you relied in forming any of your
19	opinions?
20	THE WITNESS: Inasmuch as the
21	conclusions in that draft report, I relied upon in
22	forming some of my opinions.
23	HEARING OFFICER BOUILLON: But not the
24	raw data itself?

THE WITNESS: I did not use the raw

- 2 MS. CROCKETT: May I ask him a question?
- 3 HEARING OFFICER BOUILLON: About that.
- 4 MS. CROCKETT: About that.
- 5 REDIRECT EXAMINATION
- 6 BY MS. CROCKETT:
- 7 Q Mr. Cook, when you were forming your
- 8 opinion, did you look at the raw data and the
- 9 negative oxygen samples --
- 10 A Yes.
- 12 correctly drawn in your opinion?
- 13 A I did.
- 14 HEARING OFFICER BOUILLON: Did you use
- 15 those?
- 16 THE WITNESS: I didn't -- I performed no
- 17 calculations on them.
- 18 HEARING OFFICER BOUILLON: Okay. I have
- 19 nothing further.
- MS. CROCKETT: Excuse me?
- 21 HEARING OFFICER BOUILLON: I have
- 22 nothing further.
- MS. CROCKETT: I have nothing further,
- either. Thank you.
- 25 May the witness be excused?

- 2 MS. CROCKETT: I need to confirm they
- 3 have some data that needs to be transferred to me,
- 4 and I ask -- ask for maybe a two minute recess to
- 5 pick up the --
- 6 HEARING OFFICER BOUILLON: We'll --
- 7 Counsel?
- 8 MR. TURNER: I was going to suggest that
- 9 maybe ten minutes now would be appropriate, having
- 10 set the record for giving this proceeding 120
- 11 minutes back.
- 12 HEARING OFFICER BOUILLON: You're in
- 13 private practice, aren't you? You think you
- deserve a bonus.
- 15 (Laughter.)
- MR. TURNER: Ten minutes is all I'm
- 17 asking. I -- I do need a few minutes to confer
- 18 with Mr. McFadden, because he's got some limited
- 19 supplemental direct on the negotiation regarding
- 20 the Soil and Water conditions that the parties
- 21 discussed this morning. So ten minutes would be
- 22 great, Mr. Bouillon.
- 23 HEARING OFFICER BOUILLON: I think ten
- 24 minutes is appropriate. I would also encourage
- 25 the parties to see if they can line up how we

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1 should proceed with respect to what we have marked
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- 2 as, I believe it's Exhibit 80. You had questions
- 3 last night. When we come back, if each of the
- 4 parties can advise me about whether or not they
- 5 have additional cross examination of Ms. Bond with
- 6 respect to Exhibit 80, I would appreciate it.
- 7 MS. CROCKETT: That would be my
- 8 question, is what is the order upon re-adjourning.
- 9 Are we going to do the Soil and Water errata, or
- 10 are we going to Biological?
- MR. TURNER: We still have our Water
- 12 direct.
- MS. CROCKETT: We're still doing Water.
- 0kay.
- 15 HEARING OFFICER BOUILLON: We just took
- 16 Mr. Cook out of order.
- MS. CROCKETT: Okay. Thank you. That's
- 18 what I needed to confirm.
- 19 (Off the record.)
- 20 PRESIDING MEMBER KEESE: Back on the
- 21 record.
- 22 HEARING OFFICER BOUILLON: Let me ask
- Ms. Holmes, regarding Ms. Bond's testimony, has
- anyone indicated a desire to cross examine?
- MS. HOLMES: No one has indicated one

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1 way or the other.
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- 2 HEARING OFFICER BOUILLON: Mr. Turner,
- do you have a preference?
- 4 MR. TURNER: I'm sorry, I missed -- I
- 5 didn't hear you --
- 6 HEARING OFFICER BOUILLON: With regard
- 7 to Exhibit 80, the Conditions of Certification.
- 8 MR. TURNER: The Staff Errata, you're
- 9 referring to.
- 10 HEARING OFFICER BOUILLON: It is called
- 11 Errata, and that's making me crazy because I don't
- 12 think of it that way.
- MR. TURNER: We certainly don't have any
- 14 questions of Ms. Bond regarding that Errata. In
- lieu of that, we're prepared, when Mr. McFadden
- 16 takes the stand with the Applicant's Water
- 17 Resources testimony, to ask him just a couple
- 18 questions about the Applicant's view of the
- 19 exhibit, proposed Exhibit 80.
- 20 HEARING OFFICER BOUILLON: That's fine.
- 21 Ms. Crockett, do you have questions
- about Exhibit 80 for Ms. Bond?
- MS. CROCKETT: Are we discussing the
- 24 Errata?
- 25 HEARING OFFICER BOUILLON: Yes, it is

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1 Errata.
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- 2 (Laughter.)
- 3 MS. CROCKETT: No. I would also state
- 4 that we would have no cross examination of Ms.
- 5 Bond, but that we would put a witness on
- 6 representing -- and Counsel is aware of this --
- 7 Mr. Hathaway, as an Intervenor, to give his
- 8 evaluation of the conceptual design of the Errata
- 9 questions.
- 10 MS. HOLMES: I'm sorry, Ms. Crockett. I
- think we're talking about two different things
- 12 here. One of the --
- MS. CROCKETT: Oh.
- 14 MS. HOLMES: -- one of the issues that
- 15 came up this morning, Mr. Bouillon, was that Three
- 16 Mountain wanted to present some conceptual
- 17 concepts for modification of Staff's Errata, and I
- 18 believe that that's what Ms. Crockett is referring
- 19 to. But since they haven't mentioned it on the
- 20 record here, I wasn't -- I hadn't brought it up
- 21 myself. And, nor had I mentioned what Staff's
- 22 response to that would be.
- 23 HEARING OFFICER BOUILLON: Are you
- offering Exhibit 80 at this time?
- MS. HOLMES: I would like to.

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1 HEARING OFFICER BOUILLON: Do you have
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- 2 any objection to Exhibit 80, the Errata, being --
- 3 being put in evidence?
- 4 MS. CROCKETT: Just one moment.
- 5 (Inaudible asides.)
- 6 MS. CROCKETT: I have a procedural
- 7 question. I'm not quite clear that it being put
- 8 into evidence means that that would be the
- 9 final --
- 10 HEARING OFFICER BOUILLON: No.
- 11 MS. CROCKETT: We have no -- no problem
- 12 with it being put into evidence. Thank you.
- 13 HEARING OFFICER BOUILLON: What the
- 14 California Energy Commission itself decides after
- 15 a Presiding Member's Proposed Decision, that's the
- only thing that will be final in this case. This
- 17 is just -- this is just their testimony about what
- they would like to see at this time. It's not
- 19 even final with respect to them, probably, knowing
- them as I do.
- MS. CROCKETT: As -- as long as --
- (Laughter.)
- MS. CROCKETT: You are absolutely
- 24 correct. As long as that is on the record, then
- we have no problem.

Τ	HEARING OFFICER BOUILLON: Mr. Turner,
2	do you have any objection?
3	MR. TURNER: Mr. Bouillon, we have no
4	objection to Exhibit 80 being marked and entered,
5	with the understanding that I don't believe either
6	of the two other active parties will object to my
7	asking Mr. McFadden, when he takes the stand, some
8	limited supplemental questions about the
9	Applicant's conceptual view as as Ms. Holmes
10	just described it.
11	HEARING OFFICER BOUILLON: One has
12	nothing to do with the other. Exhibit 80 will be
13	admitted.
14	(Thereupon Exhibit Number 80 was
15	received into evidence.)
16	MS. HOLMES: Mr. Bouillon, since the
17	issue has now been raised by the Applicant, I
18	think it's probably appropriate to let you know
19	that if Three Mountain wants to propose conceptual
20	changes to the Errata that Staff has prepared, we
21	would like to be able to have Ms. Bond recalled
22	for the limited purposes of providing direct
23	testimony on their proposal.

But I think it's appropriate to wait

until they've actually presented it on the stand

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1	l :	bef	ore	we	do	that,	but	Ι	did	want	to	let	peop.	le
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- 2 know that we would be doing that, and that we had
- 3 discussed that with Burney Resources Group and
- 4 Three Mountain, and there was no opposition.
- 5 HEARING OFFICER BOUILLON: It's pretty
- 6 hard to determine the need or lack of need for
- 7 rebuttal testimony until you have something to
- 8 rebut.
- 9 MS. HOLMES: Correct.
- 10 HEARING OFFICER BOUILLON: At this time
- 11 we'll continue with the Water Resources portion of
- this hearing. And we have concluded the Staff
- 13 witnesses, and Burney Resource Group witness. The
- 14 Applicant, please present your witnesses as a
- panel, please?
- MR. TURNER: Yes. We would call our
- Water Resource witnesses, Mr. Sheahan, Mr. Hamer,
- and Mr. McFadden.
- 19 (Thereupon N. Thomas Sheahan, W. Greg
- 20 Hamer, and Martin McFadden were, by
- 21 the reporter, sworn to tell the truth,
- 22 the whole truth, and nothing but the
- 23 truth.)
- 24 HEARING OFFICER BOUILLON: Would each of
- you, starting with Mr. McFadden, please identify

1 yourself for the record, and state your

- 2 employment?
- 3 MR. McFADDEN: My name is Marty
- 4 McFadden. I'm the Vice President of Three
- 5 Mountain Power.
- 6 MR. SHEAHAN: My name is N. Thomas
- 7 Sheahan. I'm Principal Hydrogeologist for the
- 8 firm of URS and Dames and Moore.
- 9 MR. HAMER: My name is W. Greg Hamer.
- 10 I'm a hydrogeologist with URS Dames and Moore.
- 11 HEARING OFFICER BOUILLON: Mr. Turner.
- 12 MR. TURNER: Thank you, Mr. Bouillon.
- 13 DIRECT EXAMINATION
- 14 MR. TURNER: Panel Members, did you
- 15 prepare the direct testimony on Soil and Water
- 16 Resources that was submitted by the Applicant on
- 17 December 1, 2000?
- MR. SHEAHAN: Yes.
- MR. HAMER: Yes.
- MR. McFADDEN: Yes.
- 21 MR. TURNER: And did that direct
- testimony contain 11 included exhibits?
- MR. SHEAHAN: Yes.
- MR. HAMER: Yes.
- MR. McFADDEN: Yes.

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1 MR. TURNER: Mr. Sheahan and Mr. Hamer,
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- 2 was a copy of your qualifications submitted with
- 3 that testimony?
- 4 MR. SHEAHAN: Yes, it was.
- 5 MR. HAMER: Yes.
- 6 MR. TURNER: Mr. McFadden, were your
- qualifications submitted with the Applicant's
- 8 direct testimony on Air Quality?
- 9 MR. McFADDEN: Yes.
- 10 MR. TURNER: Will the parties stipulate
- 11 to the qualifications of these witnesses at this
- 12 time?
- 13 HEARING OFFICER BOUILLON: The Committee
- 14 will accept their qualifications.
- MR. TURNER: Thank you.
- 16 Mr. Sheahan, did you prepare the
- 17 rebuttal testimony on Water Resources which was
- 18 accompanied by one appendix and submitted by the
- 19 Applicant on December 7th, 2000?
- MR. SHEAHAN: Yes.
- 21 MR. TURNER: Panel Members, do you have
- 22 any corrections or modifications to either the
- 23 direct testimony or the rebuttal testimony at this
- 24 time?
- MR. HAMER: No.

- 1 MR. SHEAHAN: Yes, I do.
- 2 MR. TURNER: Would you please indicate,
- 3 Mr. Sheahan, what those corrections are, and which
- 4 piece of testimony that is?
- 5 MR. SHEAHAN: Yes. First I'd like to
- 6 turn to our direct testimony, on page 1. The
- 7 second full paragraph under 1-C, the fourth line
- 8 at the left-hand side, the number of years of
- 9 professional experience for Mr. Hamer should be
- 10 22.
- 11 MR. TURNER: And is there another
- 12 correction?
- MR. SHEAHAN: Yes. On page 6, the
- 14 paragraph under the heading B, Hat Creek Basin,
- the second line, the number 600 should be 420.
- And further down in that line, the word "three"
- 17 should be "two".
- MS. CROCKETT: I'm sorry, could you
- 19 repeat that?
- MR. SHEAHAN: Yes. On page 6 of the
- 21 direct testimony, under the heading Hat Creek
- 22 Basin, the first full paragraph, second line, the
- 23 numeral, the number 600 should be 420. And
- further down in that same line, the word "three"
- should be "two".

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1 The next item is also in that same
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- document on page 16. Under paragraph 4-A, the
- 3 heading Burney Basin Discharge, the fifth line
- down at the right-hand side of that line, the word
- 5 "reduction" is misspelled. So r-e-c-u-t-i-o-n
- should be r-e-d-u-c-t-i-o-n.
- 7 And I have one more in the rebuttal
- 8 testimony.
- 9 MR. TURNER: Would you please indicate
- 10 which passage of the rebuttal testimony that
- occurs in, Mr. Sheahan?
- 12 MS. CROCKETT: Is there an extra copy of
- the rebuttal? Unfortunately, Dr. Ellis and Mr.
- 14 Cook -- oh, thank you. Never mind, we've got an
- 15 extra. I'll just note -- go ahead and continue.
- MR. SHEAHAN: I'm sorry. Give me just a
- 17 moment. I seem to have misplaced my notes on
- 18 this.
- 19 (Pause.)
- MR. TURNER: Mr. Sheahan, let me just
- 21 refresh your recollection. I think the passage
- you wanted to correct is on page 6. It is the
- 23 misspelling of the word "cumulation" in the first
- full paragraph, in the middle of that page.
- MR. SHEAHAN: That -- that is the

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1 correction. Sorry, I'm just trying to find -- oh,
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- 1 I'm sorry, I have it here now. It is page 6.
- 3 MR. TURNER: And the correction you wish
- 4 to make is what?
- 5 MR. SHEAHAN: The second line of the
- first full paragraph on that page, the word
- 7 "cumulation" should be "cumulative".
- 8 MR. TURNER: Does that conclude the
- 9 corrections and modification to your testimony?
- MR. SHEAHAN: Yes.
- 11 MR. TURNER: Panel Members, is this
- 12 testimony, both direct and rebuttal, as
- 13 appropriate, true and correct to the best of your
- 14 knowledge?
- MR. HAMER: Yes.
- MR. SHEAHAN: Yes.
- MR. McFADDEN: Yes.
- 18 MR. TURNER: You are aware, are you not,
- 19 that the Applicant and the CEC Staff entered into
- 20 a stipulation regarding Water and Biological
- 21 Resources on December 7th, 2000?
- MR. SHEAHAN: Yes.
- MR. HAMER: Yes.
- MR. McFADDEN: Yes.
- 25 MR. TURNER: And have you reviewed that

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1 stipulation?
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- 2 MR. HAMER: Yes.
- 3 MR. SHEAHAN: Yes, I have.
- 4 MR. McFADDEN: Yes.
- 5 MR. TURNER: Mr. Sheahan and Mr. Hamer,
- do you agree with its provisions as it relates to
- 7 -- as those provisions relate to Water Resources?
- 8 MR. SHEAHAN: Yes, I agree with that.
- 9 MR. TURNER: And Mr. Hamer?
- MR. HAMER: Yes, I agree also.
- MR. TURNER: Mr. Sheahan, are you
- familiar with the final Environmental Impact
- Report prepared for the East Side Aggregates
- 14 Project, which has been referred to as the Hat
- 15 Creek Environmental Impact Report earlier in this
- 16 proceeding?
- MR. SHEAHAN: Yes.
- 18 MR. TURNER: And have you reviewed that
- 19 EIR?
- MR. SHEAHAN: Yes, I have.
- 21 MR. TURNER: Mr. Sheahan, is there any
- 22 information in that EIR that would cause you to
- 23 change any of your conclusions regarding the Water
- 24 Resource impacts of the Three Mountain Power
- 25 Project?

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1 MR. SHEAHAN: No.
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- MR. TURNER: Mr. Sheahan, have you
- 3 reviewed the Applicant's document entitled
- 4 Opposition to the Burney Resource Group's Report
- 5 -- Request for Delay, the Applicant's opposition
- 6 document having been filed with its Prehearing
- 7 Conference Statement, and is now Exhibit 70 in
- 8 this proceeding; have you reviewed that document?
- 9 MR. SHEAHAN: Yes, I have.
- 10 MR. TURNER: Would you please refer to
- pages 6 and 7 of that document now, Exhibit 70.
- 12 MR. SHEAHAN: I have that document now.
- 13 MR. TURNER: I'm specifically referring
- 14 you to the two paragraphs of Section 2-A, on pages
- 15 6 and 7.
- MR. SHEAHAN: Yes.
- 17 MR. TURNER: Do you agree with the
- 18 factual statements on Water Resources contained in
- those two paragraphs?
- MR. SHEAHAN: Yes, I do.
- 21 MR. TURNER: Based on your review of the
- 22 Hat Creek project EIR, and your familiarity with
- 23 the Three Mountain Power Project, in your opinion
- 24 does the Hat Creek EIR indicate any new
- 25 significant cumulative impact of the Three

1 Mountain Power Project that would occur if the Hat

- 2 Creek Project were approved?
- MR. SHEAHAN: No. No new cumulative
- 4 impact.
- 5 MR. TURNER: Similarly, in your opinion,
- 6 does the Hat Creek EIR indicate that any
- 7 cumulative impact of the Three Mountain Power
- 8 Project would be substantially more severe if the
- 9 Hat Creek Project were approved?
- MR. SHEAHAN: No, it does not.
- MR. TURNER: Mr. McFadden, would you
- 12 please state Three Mountain Power's position with
- 13 respect to the Soil and Water Resource Conditions
- of Certification, as that position exists, based
- on the conversations that Three Mountain Power has
- 16 had with the other parties to the case over the
- 17 last several days?
- MR. McFADDEN: Yes, I would. In the
- 19 Soil and Water Resources Conditions of
- 20 Certification, there are critical business issues
- 21 which are intertwined with the technical issues,
- 22 and Three Mountain Power has been working with
- 23 Staff and the other parties to -- to come to an
- 24 agreement on a series of conditions that work for
- 25 all the parties, and at the same time ensure that

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1 the impacts of the project are mitigated to a
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- 2 level below the level of significance.
- We agree with, and I believe the other
- 4 parties do, but I can't speak for them, we agree
- 5 with the Water conditions, Soil and Water 1
- 6 through 8 and 14, in the Staff's Errata dated
- 7 December 18th. We are comfortable that we can
- 8 achieve changes to the other conditions that will,
- 9 at the same time that they protect local well
- 10 owners and ensure that the impacts are reduced to
- 11 a level below significant, also meet the needs of
- 12 all of the parties. And we have been working with
- the Staff on these conditions, and with the other
- parties, as well, and will continue to do so.
- Conceptually, we need that the
- 16 Conditions of Certification be clear and provide
- 17 certainty and finality. The completion of
- 18 mitigation and its verification cannot depend upon
- 19 a third party agreement. The conditions that are
- still, as it were, open, deal with technical
- 21 issues and intertwined verifications and
- 22 commercial issues.
- 23 First, there is a specific capacity
- 24 test, which I believe is the subject of Soil and
- 25 Water 8 in the Errata. And we've come to an

agreement on that, but it provides the input data
for the rest of the framework. The specific

capacity test verifies that the wells have certain

characteristics, and the characteristics that the

wells have provide input to the preparation of an

aquifer test, preparation and completion of an

aquifer test.

hand, basically.

The aquifer test will calculate -- will provide the -- or, well, excuse me. The specific capacity test will provide the parameters necessary to complete an aquifer test which, in turn, will provide the parameters necessary to calculate well interference, which is the issue at

In the aquifer test we need that the Compliance Project Manager of the California Energy Commission timely review and approve that the work plan that's required to be developed meets the objectives of the Conditions of Certification. A work plan needs to be -- needs to be determined following the -- the conclusion of the specific capacity test. The specific capacity test information is prerequisite to a -- an aquifer test, and it's not possible to develop an aquifer test at this time. So we need timely

 $1\,$ $\,$ $\,$ review and approval so that the work plan can

2 clearly be stated that it meets the objectives of

3 the Conditions of Certification.

followed the work plan.

The work plan also must include the
methodology under which the interference
calculations will be performed. And we -- we need
timely compliance project management review of the
final report to affirm that we have followed --

Following the completion of the aquifer test, we will now have the data necessary to calculate the potential well interferences. The well interference methodology would be previously approved in the aquifer test methodology. We need an objective trigger for mitigation based on the interference impacts that are -- that are calculated by the well interference calculation.

The trigger should be, as the Staff has stated, five feet or more over the 30 year life of a plant of calculated draw-down, so that -- that is to say that if there is five feet or more calculated draw-down, using the calculation period, the 30 year expected life of the plant, in an existing well, then that -- that well may be subject to -- to mitigation. And for the

1 calculation of potential well interferences, we

- 2 need timely review that the calculation was
- 3 performed in accordance with the work plan.
- 4 Then we move to impacts. We've finished
- 5 the -- the technical aspects and the conditions
- 6 that I just talked about are more to the technical
- 7 issues, and I don't think we'll have a problem
- 8 resolving those. But then the question comes,
- 9 what happens, how do we determine if there is an
- 10 impact now that we've calculated there is a
- 11 potential impact.
- 12 And because we're in the process of
- mitigating prospectively a projected long-term
- impact, we think there's -- there's several
- 15 criteria that are appropriate for residential well
- 16 -- residential well impacts. First of all, the --
- 17 the well must be in the group that's calculated to
- 18 have a potential impact. It must be in service at
- 19 the time of certification. And the well must then
- 20 become incapable of providing the well owner's
- 21 needs.
- 22 And to determine if these criteria are
- 23 met, especially that last criteria, we do need to
- obtain information and access from well owners.
- To the extent that well owners would not provide

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1 us with the access or information, or are
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- 2 unresponsive, we -- we need to be deemed to have
- 3 met the Condition of Certification. However,
- 4 that's not to say we're shutting the door on
- 5 someone if they -- they lately come up and say --
- 6 respond late. We just need to be able to move
- 7 forward with the project in the -- in the event
- 8 that someone is not immediately, or -- or
- 9 reasonably cooperative in providing the
- 10 information.
- 11 But when we've obtained the information
- and necessary access, we will engage independent
- 13 contractors who can assess the information that
- 14 the well owner provides, and the specific physical
- 15 characteristics of their well and situation, and
- 16 propose a mitigation measure from the list of
- 17 mitigation measures that are contained in the
- 18 Condition of Certification. We see that the
- 19 spectrum of Conditions of Certification would
- 20 range -- or Conditions -- excuse me -- mitigations
- 21 in the Condition of Certification, would -- would
- 22 run from well bowl lowering; reboring the well, if
- 23 necessary; replacing the driver, be it a motor or
- an engine; or perhaps, in an extreme case, the
- 25 replacement of -- of the entire well.

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1
                   But we would -- would propose these,
 2
         what we believe the appropriate mitigation measure
 3
         is, based on engaging an independent consultant or
 4
         expert to -- to assess the specific
 5
         characteristics of the -- the well -- of the well
         owner's circumstances. We would provide the well
         owner an opportunity to provide input into what
 8
         the appropriate mitigation is. But we would
         present the list of impacted wells and proposed
 9
10
         mitigations to the Compliance Project Manager, who
11
         would ratify the choice or select another
         mitigation from -- from the list that's contained
12
13
         in the Conditions of Certification.
14
                   Having the California Energy Commission,
15
         through its Compliance Project Manager, ratify or
         select the mitigation from the list, is consistent
16
17
         with CEQA's requirement that mitigation be
18
         selected by the agency that's making the -- the
19
         CEOA determination.
20
                   Further, the -- the selection of a -- of
21
         a mitigation from a specific range of mitigations
22
         is critical from a business perspective, yet it
         ensures that any nearby well owner is protected.
23
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TMP will then take the selected mitigation to the

new well owner, and -- and implement this, and

24

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1 effect this mitigation.
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2	The same things that I've just outlined
3	for the residential wells apply also to
4	agricultural and industrial and commercial wells.
5	However, there's an additional requirement that we
6	propose for compensation for the increased energy
7	costs that may that may be caused by our
8	impact. We propose to compensate for the
9	increased energy costs on an annual basis, paid
10	prospectively, with a true up at at year-end.
11	One of the areas of discussion is when
12	will the tests occur. And TMP believes that the
13	specific capacity in aquifer tests which provide
14	the input data for this scheme, can be completed
15	prior to start-up. And, in fact, we we believe
16	that they can be. But there is a because of
17	of technical issues, a possibility that sufficient
18	well excuse me, sufficient storage in the
19	Burney Water District system might not be
20	available to complete the tests, and if that's the
21	case, the tests would need to be completed during
22	commissioning.
23	But if the tests are not completed
24	during start-up, and any of the wells in the
25	impacted area go dry, as a safety net we will

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1 immediately, on receipt of notice, mitigate by
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- 2 providing alternate water supply to a well owner
- 3 until the permanent mitigation can be selected and
- 4 implemented, as described above.
- 5 So I think that with these conditions
- 6 that provide the clarity and certainty and
- finality, that we -- we have a scheme that
- 8 mitigates all of the water impacts below a level
- 9 of significance.
- 10 MR. TURNER: Mr. Sheahan, you have just
- 11 heard Mr. McFadden describe an approach to well
- interference mitigation. In your opinion, will
- the approach outlined by Mr. McFadden assure that
- 14 any significant well interference impacts will be
- 15 mitigated as he says, to a less than significant
- level?
- MR. SHEAHAN: Yes.
- 18 MR. TURNER: The Water Resources Panel
- of the Applicant is available for cross
- 20 examination, Mr. Bouillon.
- 21 HEARING OFFICER BOUILLON: Ms. Holmes.
- MS. HOLMES: I have just -- let me have
- just one minute.
- I just have one question with, again,
- 25 notification to the Committee that we would like

- 2 proposal that's just been made.
- 3 CROSS EXAMINATION
- 4 MS. HOLMES: The question I have is
- 5 whether or not it's a fair statement that Three
- 6 Mountain is in agreement with the Staff's Errata
- 7 with respect to the Conditions of Certification
- 8 that apply post completion of the mitigation with
- 9 respect -- post completion of the project
- 10 operation, with the exception of the fact that you
- 11 wish to drop the one-time lump sum payment. Is --
- is that a fair characterization?
- MR. TURNER: I believe Mr. McFadden
- 14 should respond to that.
- MR. McFADDEN: I have to spend a minute
- looking at this, because it's changed -- changed
- many times, and there's another area of concern
- 18 that I want to make sure has been -- has been
- 19 deleted.
- 20 With the schema, I -- let me, if I can
- 21 ask you a question rather than try to read the
- 22 whole thing. Has the condition that -- that the
- 23 plant be -- operate in a dry cooling mode only
- 24 been removed with -- in this --
- MS. HOLMES: No, that wasn't my

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1 question. Perhaps if I phrase it in a different
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- 2 way it would help.
- 3 Do you have any objections to the
- 4 Conditions of Certification as proposed by Staff
- 5 that go into effect after mitigation has been
- 6 approved by the CEC, other than the fact that you
- 7 wish to drop the one-time lump sum payment?
- 8 MR. TURNER: Ms. Holmes, could you
- 9 specify which --
- MR. McFADDEN: Yeah.
- 11 MR. TURNER: -- particular post
- 12 certification condition you would ask Mr. McFadden
- 13 to look at? I think that would help him.
- 14 PRESIDING MEMBER KEESE: I think it's
- 15 13.
- MS. HOLMES: Well, I know that --
- 17 PRESIDING MEMBER KEESE: Page 10.
- MS. HOLMES: -- that when we discussed
- 19 them this morning, they re-numbered the
- 20 Conditions, but I'll refer to the numbers that are
- in the -- that are in --
- MR. TURNER: I think that would help
- him, because he's working with the same document
- you are, I believe.
- 25 PRESIDING MEMBER KEESE: Page 10.

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1 MS. HOLMES: I'm referring to -- I'll
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- 2 withdraw the question and we'll deal with it on
- 3 direct. That'd be much easier.
- 4 HEARING OFFICER BOUILLON: No -- no
- 5 further --
- 6 MS. HOLMES: No other questions.
- 7 HEARING OFFICER BOUILLON: And is that
- 8 true with respect to both the Conditions of
- 9 Certification and the Water testimony, in general?
- MS. HOLMES: Yes.
- 11 HEARING OFFICER BOUILLON: Ms. Crockett?
- 12 and I'll remind you that we're not only talking
- about the Errata and those Conditions of
- 14 Certification, and the proposal put forth by Mr.
- McFadden, but by all of the Water Resources
- 16 testimony that was noted in response to Mr.
- 17 Turner's questions.
- MS. CROCKETT: The -- excuse me, the
- 19 Burney Resource Group will deal with the Errata
- 20 first.
- MS. CROCKETT: We're in agreement in
- 22 many areas with Staff, but there are some
- 23 conceptual concerns that we have, and -- which
- 24 Staff and Three Mountain are aware of. And a lot
- of it is language and some of it is a concern that

in areas of verification, maybe a little bit more

- 2 clarification on timelines.
- 3 HEARING OFFICER BOUILLON: Do you have
- 4 some questions for these witnesses about that?
- 5 MS. CROCKETT: I think -- okay. We will
- deal with those direct with Ms. Bond, on the
- 7 Errata.
- 8 On the water -- the water -- no, on
- 9 their Water testimony, I have a couple of
- 10 questions.
- 11 CROSS EXAMINATION
- 12 MS. CROCKETT: It would be directed to
- 13 Mr. Sheahan.
- 14 Are you familiar with Dr. Rose and Dr.
- 15 Fox's calculations on water contributions of
- amounts of water that go over Burney Falls?
- 17 MR. SHEAHAN: I'm familiar with some of
- 18 the documents. Could you direct me to the
- specific ones you're referring to, please?
- 20 MS. CROCKETT: Absolutely. Let's talk
- 21 about Dr. Rose's calculations that were discussed
- 22 yesterday on his May 22nd letter.
- Okay, I'm going to do this from memory.
- I don't have the letter specifically right in
- 25 front of me.

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1 MR. SHEAHAN: If you could bring me a
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- 2 copy it might be easier.
- MS. CROCKETT: We have this --
- 4 HEARING OFFICER BOUILLON: I have a --
- 5 Ms. Crockett, I have a letter dated May the 23rd.
- 6 MS. CROCKETT: It might be in one of
- 7 theirs, because it wasn't one of their submittals.
- 8 Thank you, Mr. Bouillon.
- 9 HEARING OFFICER BOUILLON: And that is
- 10 Exhibit --
- 11 MR. TURNER: If it would help, Ms.
- 12 Crockett, I believe you're referring to the Dr.
- 13 Rose memo dated May 23rd, that's Exhibit 9 to the
- 14 Water Resource direct testimony.
- MS. CROCKETT: Thank you.
- MR. SHEAHAN: I have it.
- 17 MR. TURNER: Do you have a copy of that,
- 18 Mr. Sheahan?
- MR. SHEAHAN: I have that. And I'm
- 20 sorry, could you tell me where in that document
- 21 you're referring?
- MS. CROCKETT: List -- page 3. Dr. Rose
- states, at the bottom of the page, the last
- 24 paragraph, that the mass balance model that he's
- 25 developed suggests that there is not enough intra-

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1 basin flow to deliver sufficient groundwater with
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- 2 the -- the necessary isotopic characteristics to
- 3 deliver the sufficient volume of groundwater at
- 4 Burney Falls. Are you in agreement with that?
- 5 MR. SHEAHAN: If I may just read it into
- 6 the record. The statement begins in reference to
- 7 a previous quotation from the Dames and Moore
- 8 report, and it says, In contrast to the statement,
- 9 the results of the mass balance model developed
- 10 here suggest that an intra-basin flow model cannot
- deliver a sufficient volume of groundwater with
- the necessary isotopic characteristics to account
- for the minus 13.0 per mil groundwater at Burney
- 14 Falls.
- 15 And then the second sentence in that
- 16 paragraph, The available data implies an
- 17 additional inter-basin mixing component is
- 18 required.
- 19 I've looked at this, and I -- I don't
- 20 agree exactly. Let me explain.
- MS. CROCKETT: Absolutely.
- MR. SHEAHAN: The assumptions that went
- 23 into the -- the model, the inter-basin or intra-
- 24 basin modeling that were done here, were based on
- 25 Dr. Rose's, and I believe Dr. Davis' previous work

in the area, in which they developed an equation

- 2 for the relationship between the oxygen 18
- 3 deficiency and elevation at which precipitation
- 4 occurred.
- 5 That equation was based on sound data.
- 6 It was an excellent piece of work, but it referred
- 7 to the area to the west of the Cascade Mountains.
- 8 The data were based on -- on samples from that
- 9 area, and -- and I concur that it's representative
- of that area.
- 11 The Burney Basin, however, is to the
- 12 east of the Cascade Mountains. It's in the rain
- shadow of the Cascades. By the same model, first
- of all, let -- let me just say this. By applying
- this model to the Burney Basin, we agree that
- 16 model does not work in the Burney Basin.
- 17 Incidentally, it also does not work in the Hat
- 18 Creek Basin. So there's a flaw in the model.
- 19 Let me finish my answer, please. We
- 20 went the next step. We established a similar
- 21 equation based on Dr. Rose's and Dr. Davis' data,
- for the rain shadow effect. This is presented in
- 23 Appendix A to the supplemental Hydrogeologic
- 24 Studies Report in the -- the Biological Assessment
- 25 Report.

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1 And using that equation, and a more --
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- 2 more rigorous mass balance analysis, we were able
- 3 to show that using the rain shadow effect not only
- 4 did the -- the Burney Basin, precipitation in the
- 5 Burney Basin account for all of the oxygen 18
- 6 depletion data, but that also worked for the Hat
- 7 Creek Basin.
- 8 MS. CROCKETT: As you read in that one
- 9 paragraph, Dr. Rose stated that there is not
- 10 enough intra-basin flow, in his model developed,
- 11 that there was not intra-basin flow to deliver the
- volume, and that's what you were saying right now,
- if I am correct.
- 14 MR. TURNER: Objection. Mr. Bouillon, I
- 15 think the question about that statement in Mr. --
- Dr. Rose's memo has been completely answered by
- 17 Mr. Sheahan. He said he disagreed with that, and
- 18 he explained the basis for his disagreement with
- 19 it. I don't --
- 20 HEARING OFFICER BOUILLON: He did.
- We're going to give Ms. Crockett a little leeway,
- 22 and since this is cross examination I'm going to
- 23 make him say it again. Hopefully, in terms a
- layman can understand.
- MR. TURNER: Okay. Thank you.

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1 MR. SHEAHAN: Could you repeat the
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- 2 question, please.
- 3 MS. CROCKETT: Okay. First, you made --
- 4 I started to ask a question in the midst of your
- 5 statement, and I apologize. I was trying to
- 6 clarify which study you felt was not valid. So
- 7 we'll go back to your original statement that I
- 8 started to say something, and then you said let me
- 9 finish. And were you referring to Dr. Rose's
- 10 study, or an earlier study of yours?
- 11 MR. SHEAHAN: Neither. I -- I did not
- 12 say that either study was valid.
- MS. CROCKETT: Or did not work, excuse
- 14 me. Did not work. You -- you tell me what you --
- 15 what you said.
- MR. SHEAHAN: Well --
- MR. TURNER: Rather than have Mr.
- 18 Sheahan do that, Ms. Crockett, perhaps you could
- 19 rephrase your initial question, and Mr. Sheahan
- 20 could try again --
- MS. CROCKETT: Okay.
- 22 MR. TURNER: -- to give you the answer
- that I think he gave you, perhaps more concisely,
- and, as Mr. Bouillon requested, in layman's terms.
- 25 MS. CROCKETT: Okay. According to your

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1 calculations, and using the rain shadow theory, do
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- 2 I understand correctly -- and this would be my
- 3 question -- that there is enough water between
- 4 rain precipitation and intra-basin flow to answer
- 5 the oxygen levels at the Falls?
- 6 MR. SHEAHAN: Yes. And let me see if I
- 7 can summarize that.
- 8 Based on our analysis of the data for
- 9 the rain shadow effect, we were able to confirm,
- 10 through a rigorous analysis of mass balance, that
- 11 there is sufficient precipitation at the
- 12 appropriate levels of oxygen depletion within the
- 13 Burney Basin to fully account for all of the
- 14 oxygen depletion data that we see in the discharge
- 15 area of Burney Basin.
- 16 Our conclusion, therefore, is that there
- is no contribution from Hat Creek to the Burney
- 18 Basin.
- 19 MS. CROCKETT: Were you present last
- 20 night when Dr. Rose testified?
- MR. SHEAHAN: Yes.
- MS. CROCKETT: We -- just for
- 23 clarification, we discussed the same paragraph
- 24 with Dr. Rose. I asked him to clarify this last
- 25 night. Were you present when he did that?

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1 MR. SHEAHAN: I was present last night
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- during his testimony.
- MS. CROCKETT: Okay. Basically, Dr.
- 4 Rose stated that with new data he would have to
- 5 re-do the calculations, but that basically this
- 6 summation of the mass balance stands, in his
- 7 opinion.
- 8 HEARING OFFICER BOUILLON: Ms. Crockett,
- 9 are you --
- 10 MR. TURNER: Is there a question there?
- 11 HEARING OFFICER BOUILLON: -- are you --
- 12 you asking whether he disagrees with Dr. Rose? Is
- 13 that -- is that your question?
- MS. CROCKETT: Okay. I'll rephrase
- 15 that. Thank you.
- 16 My question is, Dr. Rose stated after
- 17 reevaluation of new data, that his summation of
- 18 the mass balance stated in his last paragraph
- 19 still stands. Do you still disagree with that?
- 20 MR. SHEAHAN: Well, first of all, I
- 21 don't believe I've testified that I disagree with
- 22 his statement of what he has an opinion of. He
- 23 has his opinion. What I've testified to is that
- 24 we've gone a step further than that. We've used
- 25 Dr. Rose's data and made a more rigorous analysis.

Our more rigorous analysis shows that there is, in

- our opinion, no contribution from Hat Creek to the
- 3 Burney Basin.
- 4 MS. CROCKETT: Just one moment.
- 5 (Pause.)
- 6 MS. CROCKETT: I'm sorry. I've only got
- 7 Dr. Rose's qualifications. Does someone have a
- 8 copy, quickly, of his testimony that I could refer
- 9 to?
- 10 Have you read Dr. Rose's testimony?
- MR. SHEAHAN: Yes.
- 12 MS. CROCKETT: Do you agree or disagree
- with his conclusions?
- MR. TURNER: Ms. Crockett, you're going
- 15 to have to be more specific than that. There are
- 16 a lot of --
- 17 HEARING OFFICER BOUILLON: I'll sustain
- 18 that objection. If you're going to refer to one
- of Dr. Rose's conclusions, you're going to have to
- 20 tell him where it appears.
- 21 MS. CROCKETT: At the bottom of the
- 22 page --
- 23 HEARING OFFICER BOUILLON: Page?
- MS. CROCKETT: -- on page 2, Dr. Rose's
- 25 testimony. The question is asked, is it -- do you

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want me to read this question, too?
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- 2 MR. SHEAHAN: Well --
- 3 MR. TURNER: If you could just give the
- 4 witness a chance to get the document in front of
- 5 him, please.
- 6 MS. CROCKETT: Okay.
- 7 HEARING OFFICER BOUILLON: Let him try
- 8 and find it first, in the testimony.
- 9 MS. CROCKETT: Sure. The question is at
- 10 the bottom of page 2 of Dr. Rose's testimony, his
- answer is at the top of page 3.
- 12 MR. SHEAHAN: I'm looking at the -- the
- 13 FSA. I believe Dr. Rose's testimony begins on
- 14 page 119 --
- MS. CROCKETT: It's in the -- it's -- I
- just have one copy, since mine, in the shuffling
- of papers, got taken out of the binder. But it is
- 18 at the back. That is correct.
- MR. SHEAHAN: So I can count through,
- 20 the third page of --
- 21 MS. CROCKETT: The third page of his
- 22 testimony.
- MR. SHEAHAN: All right. I have the
- 24 third page, and --
- 25 MS. CROCKETT: His answer is -- it says

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answer, at the top of the page. And then the
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- 2 question should be at the bottom of the preceding
- 3 page.
- 4 MR. SHEAHAN: I'm sorry. Are you
- 5 looking at the first full paragraph at the top of
- 6 the page?
- 7 MS. CROCKETT: Okay. My question
- 8 concerns his answer at the top of the page. The
- 9 first full paragraph.
- 10 MR. TURNER: I think there's a
- 11 disconnection, Ms. Crockett. It may take us a
- 12 minute to sort this out.
- MS. CROCKETT: Sure.
- 14 MR. TURNER: Mr. Sheahan is -- is
- working with the copy of Dr. Rose's pre-filed
- 16 testimony that came with the FSA Part 3, and it
- begins on page 119 and continues for a number of
- 18 pages. And I think the pagination and the
- 19 formatting of the document you're working from is
- 20 different than his. Perhaps if you could
- 21 identify --
- MS. CROCKETT: It is a different one,
- then.
- MR. TURNER: -- the particular question.
- 25 PRESIDING MEMBER KEESE: Give us the

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1 question.
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- 2 HEARING OFFICER BOUILLON: What's the
- 3 question?
- 4 MS. CROCKETT: T: The question is that Dr.
- 5 Rose still stipulates in his testimony that --
- 6 HEARING OFFICER BOUILLON: No, no.
- 7 What's the question in --
- 8 MS. CROCKETT: Oh, the question. The
- 9 question, what conclusions do you believe can be
- 10 reached, based on the available information about
- the flow of water into and out of the Burney
- 12 Basin.
- 13 HEARING OFFICER BOUILLON: All right.
- 14 For the record, she is quoting from the last
- 15 question on page 121 of the Part 3 of the FSA.
- MS. CROCKETT: Exactly. Thank you.
- MR. TURNER: And do you have that, Mr.
- 18 Sheahan?
- 19 HEARING OFFICER BOUILLON: Do you see
- that, Mr. Sheahan?
- 21 MR. SHEAHAN: Yes, I do. Thank you.
- 22 HEARING OFFICER BOUILLON: Now, what --
- and you're asking about his answer; is that
- 24 correct?
- MS. CROCKETT: That's correct.

1 HEARING OFFICER BOUILLON: And is your

- 2 question do you agree or disagree?
- 3 MS. CROCKETT: Do you agree or disagree
- 4 with his answer?
- 5 MR. SHEAHAN: Well, let me break his
- 6 answer down to the pieces. His answer first says,
- 7 I would conclude that flow into the Burney Basin
- 8 from the Hat Creek Basin is likely in the vicinity
- 9 of Burney Falls. I disagree with that portion of
- 10 his statement.
- 11 His next statement says, the extent to
- 12 which groundwater flows into the Burney Basin in
- 13 the vicinity of the proposed project water supply
- 14 wells is speculative at this time. I would agree
- 15 with that. Any opinion that there is flow from
- 16 Hat Creek into the Burney Basin in the vicinity of
- 17 the project wells would be speculative, in my
- 18 opinion.
- 19 The third sentence says, however, it is
- 20 notable that a well located less than one mile
- 21 from the proposed water supply wells, paren, well
- 22 W-32 in the Fox report, close paren, exhibits an
- oxygen isotope value that may suggest, paren, but
- does not prove, paren, a component of Hat Creek
- 25 Basin groundwater.

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1
                   I'm not immediately familiar with that
 2
         datapoint. He doesn't mention what the value is,
 3
         so I -- I would have to look at the datapoint to
 4
         see whether I would agree that it suggests or not.
 5
                   MS. CROCKETT: Thank you. One last
 6
         question, and this is a big one, and I agree.
                   If you were to agree that there was a
 8
         component of the Hat Creek -- of the Hat Creek
 9
         aquifer as a contribution to the Burney Basin, the
10
         question is, would that change the calculation of
11
         your impacts?
                   MR. SHEAHAN: Let me make sure I
12
13
         understand. You're saying that if we assume that
14
         there is a contribution of water from Hat Creek
15
         into the basin, the question is would I -- would I
         need to make a change in my calculations of --
16
17
                   MS. CROCKETT: Of potential impacts.
18
                   MR. SHEAHAN: -- potential impact. Yes,
19
         i would. Let me -- and let me explain what that
         would entail.
20
21
                   The calculated impacts that we have made
         for the -- the Three Mountain Power water use is
22
         based on the percent of impact based on the total
23
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groundwater flow through the Burney Basin. We've

come up with a calculated percentage, and we've

24

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1 concluded that that's not significant.
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- If we were to assume that we have a

 contribution of Hat Creek water into the Burney

 Basin, that would give us a greater amount of

 water which would serve as the denominator in that

 calculation, and therefore the new calculation

 would produce a smaller percent impact.
- 8 And so we realize that, and in our 9 calculations we did not include Hat Creek inflow because we felt that was a more conservative 10 11 approach. Our approach showed a greater percent 12 impact. So we would have to make a new 13 calculation, and the new calculation would show 14 less impact than the ones that we have already 15 used.
- MS. CROCKETT: Some questions on that

 statement. It is agreed by all parties that the

 water exiting the Burney Basin, whether from Hat

 Creek or from the Burney Basin, is one amount of

 water. And you've made the statement there would

 be greater water. Does that change the outflow of

 the basin?
- MR. TURNER: Objection to the form of
 the question, Your Honor. Ms. Crockett needs to
 specify who's agreed to what, where, with respect

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1 to that first premise that -- his testimony in her
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- 2 question.
- 3 HEARING OFFICER BOUILLON: I'm going to
- 4 sustain the objection. You said everybody agrees
- on one figure existing the Burney Basin over the
- 6 Falls, and I don't think that's the case. There
- 7 have been several figures thrown around in various
- 8 reports that I've seen. It may be that the Staff
- 9 and your experts and the Applicant's have agreed
- on a figure, but if that's true you must limit it
- 11 to that figure.
- MS. CROCKETT: Thank you.
- 13 Are you in agreement with Staff and with
- 14 the Burney Resource Group that 407,000 acre/feet
- is the initial starting -- 417 -- 417,000
- 16 acre/feet is the starting number of water? I
- 17 think that I may be -- I'm doing this from memory,
- so that number may not be totally accurate. But
- 19 within that vicinity, is the starting amount of
- 20 water in the basin?
- MR. SHEAHAN: Could you --
- MR. TURNER: In the basin, or flow over
- Burney Falls, Ms. Crockett?
- 24 MS. CROCKETT: Not in the flow over
- 25 Burney Falls. The starting amount of acre/feet

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that will be used that's available.
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- 2 MR. SHEAHAN: Please help me out. If
- 3 you could direct me to where in the documents
- 4 you're referring.
- 5 MS. CROCKETT: It would be Linda Bond's
- 6 initial water budget for Burney Basin. Do you
- 7 have that as an exhibit?
- 8 MR. SHEAHAN: When you say the initial
- 9 water budget, is that in the FSA?
- 10 MS. CROCKETT: It was submitted --
- MS. HOLMES: We didn't submit the water
- 12 budget information as an exhibit, although I
- 13 believe there is a flow number for Burney Falls
- 14 that's contained in Staff's testimony that is
- 15 consistent with the number used by Three Mountain.
- 16 It's the 1920 -- I can't remember the year, 1922
- or 1927, measurement. Those two numbers are the
- 18 same.
- 19 MS. CROCKETT: I could -- maybe I can
- 20 simplify this question to a conceptual. Let me
- see if I can guide Mr. Sheahan through this.
- Mr. Sheahan, are we on agreement on the
- 23 amount of water that exits the basin through the
- various seeps and falls, and Burney Falls?
- MR. SHEAHAN: I believe the answer is

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1 no, there is some disagreement, depending on the
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- 2 methods used in developing water budgets.
- 3 MS. CROCKETT: So that would be the
- 4 final number. There would be some detail
- 5 differences in that final -- final number exiting
- 6 the fall; is that correct?
- 7 MR. SHEAHAN: I'm sorry. I don't quite
- 8 understand.
- 9 MS. CROCKETT: Clarify your feeling on
- 10 the difference in calculations of water leaving
- 11 the basin through the various seeps and Burney
- 12 Falls.
- 13 MR. SHEAHAN: Again, just to be -- just
- so I understand. You're referring only to Burney
- 15 Falls, or to Burney Falls as one of the outflows
- of the basin?
- 17 MS. CROCKETT: I am referring to the
- 18 total water that is leaving the basin through
- 19 seeps and Burney Falls. Or we could just say over
- 20 Burney Falls and the seeps right -- let me -- let
- 21 me specify. Burney Falls and the seeps right
- 22 around this -- the spring line and at the Falls
- within the park.
- MR. TURNER: And your question is, Ms.
- 25 Crockett?

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1 MS. CROCKETT: Are we in agreement on
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- 2 the amount of water that exits in that particular
- 3 area?
- 4 MR. SHEAHAN: To the extent that I
- 5 believe both Staff and the Applicant are using the
- 6 same recorded data for the flows at Burney Falls
- 7 as the basis for their calculations, I believe we
- 8 are in agreement. We -- we have information from
- 9 published documents that we have used, and that
- 10 the -- that have been used in the FSA. We agree
- on those recorded data.
- 12 But the point that I'd like to make is
- 13 that that flow varies. It varies with the time of
- 14 the year, and it varies with the year, and so
- 15 there's a lot of variation --
- MS. CROCKETT: Absolutely.
- 17 MR. SHEAHAN: -- in the flow, so there's
- 18 no single number --
- MS. CROCKETT: No one contests that.
- MR. SHEAHAN: -- that is agreed upon.
- MS. CROCKETT: Absolutely.
- MR. TURNER: Would you let Mr. Sheahan
- finish his answer, please?
- MS. CROCKETT: Oh, I'm sorry.
- 25 MR. SHEAHAN: I'm -- thank you, I think

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1 I'm through.
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- MS. CROCKETT: Burney Resource Group
- 3 totally agrees with you.
- 4 My question leads to your statement that
- 5 those numbers at the fall, seasonally, would
- 6 change if there was an increase, if Hat Creek did
- 7 contribute. I just need clarification that you're
- 8 saying that if, in fact, the numbers -- if, in
- 9 fact, Hat Creek aguifer did contribute to the
- intra-basin flow of Burney Falls, that those
- 11 numbers would increase. Is that correct? Did I
- 12 understand you correctly?
- MR. SHEAHAN: No, you did not.
- 14 MS. CROCKETT: Okay. Could you clarify
- it. That's what I thought I heard you say, and
- 16 that would be the question that I'm ultimately
- 17 trying to get to.
- 18 HEARING OFFICER BOUILLON: Ms. Crockett,
- 19 let me ask a question. I think I know what you're
- 20 driving at, and I think I --
- MS. CROCKETT: Okay.
- 22 HEARING OFFICER BOUILLON: -- know what
- you thought you heard.
- 24 Mr. Sheahan, you have a figure for the
- 25 -- that you've used in your calculations for the

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outflow of water over Burney Falls and the seeps
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- in the park. Regardless of what that figure is,
- 3 it would not increase regardless of where the
- 4 water in the Burney Basin comes from. Is that
- 5 correct? Burney Creek Basin.
- 6 MR. SHEAHAN: Yes, that's correct.
- 7 HEARING OFFICER BOUILLON: That's an
- 8 absolute figure.
- 9 MR. SHEAHAN: That's correct.
- 10 HEARING OFFICER BOUILLON: There is a
- 11 difference between you and Dr. Rose about where
- 12 that water comes from, whether it comes all from
- 13 the Burney Creek Basin or there's some -- some
- inter-basin flow from Hat Creek. Is that correct?
- MR. SHEAHAN: That's correct. Yes, sir.
- 16 HEARING OFFICER BOUILLON: But the
- outflow still remains the same.
- 18 MR. SHEAHAN: The measured outflow is --
- 19 HEARING OFFICER BOUILLON: To be
- 20 redundant, it remains the same.
- 21 MR. SHEAHAN: -- the measured outflow.
- 22 Yes.
- 23 HEARING OFFICER BOUILLON: But then you
- 24 said if there is some inter-basin transfer to the
- 25 Burney Creek Basin, that the actual impact of the

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1 Three Mountain wells would be a smaller percentage
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- of the available flow. That's what I thought I
- 3 heard you say in response to one of her questions.
- 4 MR. SHEAHAN: That's correct. Yes.
- 5 HEARING OFFICER BOUILLON: But -- and is
- 6 that -- that's because of the modeling you did
- 7 with your rain shadow effect. Is that correct?
- 8 Are those two tied together?
- 9 MR. SHEAHAN: No, not -- not quite. If
- 10 I may explain.
- 11 HEARING OFFICER BOUILLON: Okay.
- MR. SHEAHAN: The modeling we did
- indicated that there is no contribution from Hat
- 14 Creek. I believe what we're talking about is if I
- 15 were to assume that there is contribution from Hat
- 16 Creek, then that would mean that there would have
- 17 to be additional outflow. I don't know where that
- 18 outflow would go. There's no record that it would
- 19 be going out of Burney Falls, but it would have to
- 20 be going out someplace. And if we assume that
- 21 there was additional outflow going out somewhere,
- then we would have to take that into account in
- 23 calculating the impact of the Three Mountain Power
- 24 project, which would reduce the total impact.
- 25 HEARING OFFICER BOUILLON: So you're

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1 assuming that any contribution from Hat Creek,
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- then, is additional to what now goes over Burney
- Falls.
- 4 MR. SHEAHAN: Yes.
- 5 MS. CROCKETT: Thank you. That was my
- 6 question. And I --
- 7 (Laughter.)
- 8 MS. CROCKETT: -- after much work, thank
- 9 you for the clarification.
- 10 I think that concludes my questions of
- 11 their panel.
- 12 HEARING OFFICER BOUILLON: Ms. Holmes --
- 13 any redirect?
- MR. TURNER: No redirect, Your Honor.
- 15 HEARING OFFICER BOUILLON: Ms. Holmes,
- do you have any --
- MS. HOLMES: No.
- 18 HEARING OFFICER BOUILLON: Do you care
- 19 to move these into evidence?
- 20 MR. TURNER: I would move the direct and
- 21 -- direct testimony of Mr. Sheahan, Mr. Hamer, and
- 22 Mr. McFadden, as well as the rebuttal testimony of
- 23 Mr. Sheahan, into evidence as the next exhibit,
- the number of which I've lost track of, I'm sorry
- 25 to say.

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1 HEARING OFFICER BOUILLON: Before I rule
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- on that, I do have one question --
- 3 MR. TURNER: Oh, I -- pardon me. I was
- 4 just pointed -- Mr. Zischke reminded me that the
- 5 rebuttal is already in evidence. It went in with
- 6 all our rebuttal evidence yesterday, as Exhibit
- 7 69. So I'm only at this time moving the --
- 8 MR. ZISCHKE: You're moving all of it.
- 9 It's just been marked as --
- 10 MR. TURNER: Okay, it's been marked as
- 11 69, so I'd move existing Exhibit 69, plus the
- 12 direct testimony that we heard about this morning,
- together with the attached exhibits, as the next
- 14 exhibit number.
- 15 HEARING OFFICER BOUILLON: Those
- 16 portions of these witnesses' testimony, wherever
- they may be located in those exhibits, they will
- 18 be received.
- 19 (Thereupon Exhibit Number 69 was
- 20 received into evidence.)
- 21 HEARING OFFICER BOUILLON: But I have a
- 22 question for Mr. Sheahan. In responding to a
- 23 question from Ms. Crockett, from Exhibit 9 to your
- 24 -- your direct testimony, Dr. Rose's letter. The
- 25 part that you agreed with -- excuse me, I'm on the

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wrong place again. I'm sorry.
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- On page 121 of the FSA, Part 3, at the

 bottom. The sentence that you said you agreed

 with, the extent to which groundwater flows into

 the Burney Basin in the vicinity of the proposed

 project water supply wells, with respect to -- you

 said you agreed with that portion of Dr. Rose's
- said you agreed with that portion of Dr. Rose
- 8 opinion.
- 9 In doing that, what -- would you define 10 the word vicinity in that sentence?
- MR. SHEAHAN: My understanding of this
 answer is referring to flow from Hat Creek Basin
 into the Burney Basin, far enough south to where
 it would be adjacent to the proposed locations of
 the project wells. And so the vicinity that I'm
 -- that I interpret this to mean is between Hat
- 17 Creek Basin and the project wells, that portion of
- 18 it.
- 19 HEARING OFFICER BOUILLON: All right.
- The testimony of these three witnesses will be
- 21 admitted.
- 22 Can they be excused? Any reason not to
- 23 excuse them?
- 24 MS. CROCKETT: I have one other question
- formulating. I'm not sure if I want to ask it.

1	Would	this	be	the	

- 2 HEARING OFFICER BOUILLON: You've
- 3 already --
- 4 MS. CROCKETT: I've given -- been -- I
- 5 have no objection --
- 6 HEARING OFFICER BOUILLON: Unless it has
- 7 to do with the word, vicinity.
- 8 MS. CROCKETT: The word, vicinity.
- 9 Thank you. Keep me on track.
- 10 HEARING OFFICER BOUILLON: Ms. Holmes?
- MS. HOLMES: Excuse me?
- 12 HEARING OFFICER BOUILLON: May these
- 13 witnesses be excused?
- MS. HOLMES: Yes.
- MS. CROCKETT: Oh -- okay.
- 16 HEARING OFFICER BOUILLON: They are
- excused.
- 18 Turning to the next -- I believe that
- 19 concludes the witnesses on Water Resources, except
- 20 that the Staff would like to put Ms. Bond back on
- 21 the stand for redirect, giving Conditions of
- 22 Certification.
- MS. HOLMES: Yeah, the scope of the
- 24 questions will be directed --
- 25 HEARING OFFICER BOUILLON: Is that

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4	and the second s	_
1	correct	ر.
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- 2 MS. HOLMES: -- to -- the scope of the
- 3 questions will be limited to the discussion that
- 4 Mr. McFadden had this morning about their
- 5 conceptual approach to mitigation.
- 6 I -- my understanding was that Burney
- 7 Resources Group also wanted to put a witness on
- 8 for the same reason.
- 9 MS. CROCKETT: Absolutely. Just -- just
- for the scope of that particular conceptual
- discussion by Mr. McFadden.
- 12 MS. HOLMES: If we could have a ten or a
- fifteen minute break to go over that, since we
- haven't had a chance to confer since the testimony
- was given, it would be helpful.
- 16 PRESIDING MEMBER KEESE: Let me ask, how
- long do you think the testimonies will be?
- MS. HOLMES: Ten minutes.
- 19 PRESIDING MEMBER KEESE: Ma'am?
- MS. CROCKETT: Three to five.
- 21 PRESIDING MEMBER KEESE: Okay. I'm just
- 22 trying to work out here our break. So I think --
- and you'd like ten, is it?
- MS. HOLMES: Yes.
- 25 PRESIDING MEMBER KEESE: All right.

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1 We'll take ten, and then we'll try to conclude
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- both of these, and that'll be our lunch break, and
- 3 then we'll move into Biological.
- 4 MS. CROCKETT: Thank you.
- 5 HEARING OFFICER BOUILLON: We're in
- 6 recess. We'll talk -- okay. Ten minutes.
- 7 (Thereupon a recess was taken.)
- 8 MS. HOLMES: Staff would like to recall
- 9 Ms. Bond.
- 10 HEARING OFFICER BOUILLON: Ms. Bond,
- 11 you're still under oath.
- 12 TESTIMONY OF
- 13 LINDA BOND
- called as a witness on behalf of Commission Staff,
- 15 having previously been duly sworn, was examined
- and testified further as follows:
- 17 REDIRECT EXAMINATION
- 18 BY MS. HOLMES:
- 19 Q Ms. Bond, were you present in the room
- 20 earlier this morning when Three Mountain Power
- 21 presented its conceptual proposal in response to
- 22 Staff's Errata?
- 23 A Yes, I was.
- 24 Q Could you very briefly describe exactly
- 25 what the impact is that both Staff and Three

1 Mountain are attempting to mitigate, and how it

- 2 comes about?
- 3 A You mean the impact to wells?
- Q Yes.
- 5 A Oh, yes. The power plant's pumping, its
- 6 groundwater pumping, it will cause water levels to
- 7 decline in the vicinity of the well. The -- it's
- 8 called draw-down, and the draw-down radiates out
- 9 from the well. It's greatest at the well itself,
- 10 and becomes less at a distance.
- 11 This decline in water levels will have
- two impacts that we're concerned about.
- 13 Potentially, the decline in water levels could
- draw water levels in nearby existing wells below
- the intake mechanism for the well. And as a
- 16 result, well owners, existing well owners, could
- lose their water supply and their pump mechanisms
- 18 could be damaged. The pumps are designed to pump
- 19 water, not air. If they pump air, they're
- damaged.
- Those are the impacts that we're
- 22 concerned about.
- 23 Q And what's the specific concern about
- 24 the timing of the specific capacity tests and
- 25 aguifer tests that are being addressed by the

1 mitigation that's still under discussion?

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2 There isn't an issue regarding the 3 specific capacity tests. They're a general test that is usually performed to help the well 5 operator determine what size pump they should put in the well, and other parameters.

> However, the aquifer test is performed in order to determine the behavior and conditions of the aquifer system itself, aquifer system in the vicinity of the well. Part of running a -performing a good aquifer test, it's important to contain all the water that's being pumped during that aquifer test and preventing it from leaking back into the aquifer system. This aquifer in particular transmits -- has the capability of transmitting water very rapidly, so it's -- it's a very big concern in this particular location.

> So what -- what -- the reason why this is the important aspect to mention is that there's a question as to whether or not there will be storage available for the water that's produced during the aquifer test prior to project start-up. There's a possibility that Burney Water District will be building a large storage tank, and if that tank is built before the project is ready for

operation, then the aquifer tests can be run, the
water can be stored in that tank, and all of the
testing, evaluation of the test, and mitigation
can potentially be performed before the project is
ready to -- to start. That'll be great. Then we

don't have complications, those complications.

the aquifer test water, then probably the only place to put that water would be to put it into the power plant and use it for cooling. Once that test is -- if that test is not performed until the project is ready to start, then the problem is what do you do in between the time you test -- test the aquifer, make your determinations, do the mitigations necessary, and then allow the project to start using that water for -- operating the wells to produce water for cooling. What happens between that period.

Staff has proposed that during that -just during that period, the project would need to
operate on dry -- with dry cooling. The Applicant
has proposed an alternative which we described in
our conditions, in italics, that the Applicant has
proposed that instead, the project be allowed to
go ahead and operate with wet and dry cooling, and

1 that they would have this temporary mitigation of

- 2 -- of providing nearby well owners with water so
- 3 that they wouldn't need their pumps, and wouldn't
- 4 need their wells during that interim period.
- 5 So the water storage is the problem.
- 6 The question of water storage.
- 7 Q And when Three Mountain presented its
- 8 proposal this morning, did you find that it
- 9 contains deficient information to evaluate as to
- 10 whether or not it would be effective in preventing
- 11 the impacts that Staff is concerned about?
- 12 A No.
- 13 Q And, in fact, was there sufficient
- information in the proposal to conclude that it's
- 15 likely that the parties will be able to reach
- 16 agreement about the mitigation post-hearing?
- 17 A We don't yet have enough information, so
- 18 no.
- 19 Q Finally, why don't you just go through a
- 20 very brief summary of the issues and the impacts
- 21 that you're concerned about that you believe are
- 22 not addressed by the proposal that you heard this
- morning.
- 24 A I have a question. Would that include
- issues that there is confusion around, or issues

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that are simply not addressed?
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- O Both.
- 3 A Okay. My first concern is the
- 4 Applicant's proposal that the --
- 5 PRESIDING MEMBER KEESE: Excuse me. I'd
- 6 like to ask a couple questions before we get
- 7 started on this. Let me see if I understood your
- 8 testimony.
- 9 There is the proposal to build a water
- 10 tank. Evidently there isn't a water tank now.
- 11 There's a proposal to build one.
- 12 Did you give us the likelihood of that
- happening?
- 14 THE WITNESS: No, I did not.
- 15 PRESIDING MEMBER KEESE: Just there's a
- 16 proposal out there, it's not filed or anything.
- 17 It's just there.
- 18 THE WITNESS: This is a -- a water tank
- 19 -- the wells themselves, the project wells are
- 20 going to be operated by Burney Water District.
- 21 Burney Water District has a proposal --
- 22 PRESIDING MEMBER KEESE: They don't have
- a water tank now, and they're proposing to have a
- 24 water tank.
- 25 THE WITNESS: Burney Water District.

1 Yes. And I have no information on the likelihood

- of when it will be built.
- 3 PRESIDING MEMBER KEESE: Okay. Now,
- 4 then the other -- and that would take care of all
- 5 the problems.
- THE WITNESS: Yes.
- 7 PRESIDING MEMBER KEESE: The other
- 8 alternative is the tank isn't there when the
- 9 plant's ready to operate. Did I hear you say that
- 10 the mitigation would take place before the plant
- 11 was operating?
- 12 THE WITNESS: The proposal is to have
- wells mitigated for --
- 14 PRESIDING MEMBER KEESE: Potential --
- 15 THE WITNESS: -- potential loss of water
- 16 supply.
- 17 PRESIDING MEMBER KEESE: Before the
- 18 plant starts.
- 19 THE WITNESS: Before the plant starts.
- 20 PRESIDING MEMBER KEESE: Then -- and
- 21 then why would the plant start with dry cooling?
- 22 THE WITNESS: Because if the aquifer
- 23 test has to be delayed until the plant is ready to
- operate, there's going to be a significant time
- gap between performing the aquifer tests and

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1 making those mitigations.
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- 2 PRESIDING MEMBER KEESE: So the
- 3 mitigations are not going to take place before the
- 4 plant operates.
- 5 THE WITNESS: If there's no storage
- 6 available for the aquifer -- if there's no storage
- 7 available for water produced --
- 8 PRESIDING MEMBER KEESE: Okay. I
- 9 thought I heard --
- 10 THE WITNESS: -- produced for --
- 11 PRESIDING MEMBER KEESE: -- I thought I
- 12 heard the mitigation was going -- that if the --
- even if you had to wait, that you were going to do
- 14 the mitigation before the plant operated. And
- 15 that's not correct?
- 16 THE WITNESS: Before the plant operated
- 17 with pump -- in -- in the wet cooling mode. The
- 18 plant can operate on dry cooling mode, but not in
- 19 -- with the wet -- with the groundwater. It can't
- use groundwater.
- 21 PRESIDING MEMBER KEESE; Well, one
- 22 specific question. Is there -- if the tank isn't
- 23 there --
- 24 THE WITNESS: If the tank isn't there --
- 25 PRESIDING MEMBER KEESE: -- is there

going to be mitigation before the plant operates?

- 2 Mitigation of anticipated impacts.
- 3 THE WITNESS: No, there won't be
- 4 mitigation before the plant operates with the
- 5 COC's -- excuse me, with the Staff's recommended
- 6 conditions.
- 7 PRESIDING MEMBER KEESE: Okay. Thank
- 8 you.
- 9 HEARING OFFICER BOUILLON: Ms. Bond, if
- 10 -- you can resume your testimony, if you remember
- 11 the question.
- 12 THE WITNESS: Sure. I do. I was asked
- what concerns I have with the proposals that the
- 14 Applicant has made.
- One of the Applicant's proposals would
- 16 be to have the well interference analysis, a
- 17 description of that analysis submitted at the same
- 18 time they submit their aquifer test work plan,
- 19 have those two things submitted to the CPM for
- 20 review and approval.
- 21 The problem that I see with that plan is
- 22 that although some aspects of a well interference
- 23 analysis could be designed and described prior to
- 24 the aquifer test, there are other aspects that
- 25 need to be determined after the aquifer test

occurs. If you had required approval of the well

- interference test -- well interference analysis
- 3 before you've got the aquifer test information,
- then the -- then there is a possibility that the
- 5 analysis, well interference analysis plan would
- 6 not be sufficient or appropriate for evaluating
- 7 the impacts.
- 8 And so if you do this -- this premature
- 9 approval of the well interference analysis, then
- 10 there may be significant impacts that would occur.
- 11 Like if you -- if you make a plan to go to New
- 12 York next year, and you've still got some, you
- know, you don't know when all your hearings are,
- 14 you may have to renege on that trip. You may not
- 15 be able to make that trip. You won't have all the
- 16 information.
- 17 PRESIDING MEMBER KEESE: Excuse me
- 18 again. Was the Applicant suggesting that they
- would do the mitigation beforehand?
- 20 THE WITNESS: The Applicant --
- 21 PRESIDING MEMBER KEESE: Is that the --
- THE WITNESS: No.
- PRESIDING MEMBER KEESE: -- that the --
- 24 THE WITNESS: No. The Applicant was --
- 25 was suggesting that we lay out the well

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1 interference analysis before the aguifer test is
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- done, and --
- 3 PRESIDING MEMBER KEESE: And do the
- 4 mitigation before they started operating?
- 5 THE WITNESS: No.
- 6 PRESIDING MEMBER KEESE: They were not
- 7 suggesting that they would do the mitigation
- 8 before operation.
- 9 THE WITNESS: They were proposing a
- 10 temporary mitigation, but not the final
- 11 mitigation.
- 12 PRESIDING MEMBER KEESE: Okay.
- 13 THE WITNESS: Do you have more questions
- 14 about that sequencing?
- 15 HEARING OFFICER BOUILLON: I have a
- 16 question about -- but actually, I think I have to
- 17 direct that towards Ms. Holmes.
- The problems that your witness will
- 19 testify to, if she continues, are they in the
- 20 nature of evidence, or are they more in the nature
- of, really, argument or discussions that might be
- 22 best covered with briefs?
- MS. HOLMES: I believe that they are in
- the nature of evidence, as she's going to discuss
- 25 the technical reasons why there are problems with

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what the Applicant has proposed so far. That was
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- 2 the point of her discussion about the well
- 3 interference portion of their proposal, was to
- 4 provide technical testimony, or technical
- 5 information about why it's not sufficient to
- 6 prevent impacts. And I'd like to be able to
- 7 continue with -- with that.
- 8 PRESIDING MEMBER KEESE: Okay. I'll try
- 9 to restrain myself.
- 10 THE WITNESS: I -- I want to answer any
- 11 questions that you have.
- 12 I am concerned about the role of the
- independent engineer that the Applicant is
- 14 proposing. They've proposed that an independent
- 15 engineer will determine whether nearby wells will
- 16 be incapable of providing water during the life of
- 17 the project. That is the purpose of the aquifer
- 18 test analysis, and that is the role of the project
- 19 owner to -- to perform this analysis and
- 20 demonstrate the wells that would be impacted, and
- 21 the role of the Energy Commission to evaluate that
- 22 well interference analysis and -- and determine
- whether it's been done correctly or not.
- 24 So I'm very concerned that if that role
- is somehow assigned to an independent engineer,

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1
         then -- that impacts could occur. We -- we've
 2
         agreed on a -- on a methodology for determining
 3
         those impacts, and it should -- it should be
 4
         assigned -- it appears to me that it's being
 5
         assigned, at least in part, to some unnamed
 6
         independent engineer. I'm also concerned about
         the lack of information on how this independent
 8
         engineer is selected; who selects -- selects the
         person, and all those questions surrounding that.
 9
10
                   I'm concerned about the temporary
11
         mitigation that the Applicant has proposed.
         There's simply not enough detail yet available on
12
13
         who would be mitigated because, remember, at that
14
         point you don't know who will be impacted. The --
15
         the project owner is proposing that they run the
         aquifer test and then immediately start using wet
16
17
         cooling if they need to. And we don't know what
18
         those impacts are going to be until we see what
19
         the results of the well interference analysis is.
20
         Who would be mitigated, who would be qualified for
21
         this temporary mitigation, how quickly would water
22
         be provided to someone whose well would go dry.
                   For -- for homeowners, I realize that
23
24
         providing water is much simpler than providing it
25
         to commercial operations or agricultural
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1 operations. There isn't enough information on how

- 2 quickly that would occur, how quickly water could
- 3 be provided to commercial and agricultural
- 4 operations, and who would decide how much water,
- 5 et cetera, et cetera.
- I believe that summarizes the questions
- 7 I have at this point. There's just a -- a lack of
- 8 information available to ensure that adverse --
- 9 significant adverse impacts would not occur to
- 10 nearby well owners. There may be a loss of their
- 11 water supply, damage to their well equipment, and
- 12 all the corresponding problems involved in losing
- 13 your water supply.
- 14 HEARING OFFICER BOUILLON: Ms. Bond, let
- me ask you how long it takes to run the physical
- 16 aquifer test, physically do the test.
- 17 THE WITNESS: The aquifer test would
- 18 take 40 hours, and -- except for the -- we've
- 19 specified that it's okay to run the aquifer test
- and use that water, that 40 hours' worth of water
- 21 for wet cooling.
- 22 HEARING OFFICER BOUILLON: I understand
- that.
- 24 THE WITNESS: It's the period afterwards
- 25 that --

1	HEARING OFFICER BOUILLON: So we're
2	talking two days
3	THE WITNESS: we're worried about.
4	HEARING OFFICER BOUILLON: it would
5	be done.
6	THE WITNESS: Right.
7	HEARING OFFICER BOUILLON: How long
8	would it then take you to analyze the results of
9	that aquifer test?
10	THE WITNESS: Let me check our notes.
11	We we worked out the timeline on this. I
12	believe the Applicant's proposal may add some time
13	to it, but I guess that's the other piece, I
14	I'm not sure what their timeline will be.
15	It's going to be the Applicant will
16	have two months to perform the well interference
17	analysis following the aquifer test. So two
18	months to perform the analysis following the test
19	and then the CPM will have one month to review
20	that well interference report.
21	PRESIDING MEMBER KEESE: And then
22	mitigation would start?
23	THE WITNESS: Then a compensation

have a month to put together a compensation

package would be submitted by the Applicant. They

24

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1 package. So that's four months. And then
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- 2 noticing the well owners would come after that, in
- order to get access, you know, to -- to obtain
- 4 permission to get access to the wells that would
- 5 be impacted, and determine whether those could be
- 6 lowered or whether the well would have to be
- deepened, or whether the well would have to be
- 8 replaced.
- 9 HEARING OFFICER BOUILLON: That's after
- the four month process?
- 11 THE WITNESS: Yes. I -- I can go -- I
- 12 can actually provide the full timeline, if you'd
- 13 like.
- 14 HEARING OFFICER BOUILLON: Yes, I would.
- 15 THE WITNESS: Okay. Do you want me to
- 16 read it out to you?
- 17 HEARING OFFICER BOUILLON: Yes, please.
- 18 THE WITNESS: Okay. I'm going to just
- 19 start with the aquifer test. Okay. Prior to the
- 20 aquifer test they have to submit the plan, but
- 21 we'll just let that go.
- Okay. The aquifer test would be
- 23 performed at, let's just say time zero. A report
- of the aquifer test itself would be one month
- 25 later. The CPM would review that within two

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weeks, so report on aquifer test is one month.
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- 2 Review of the aguifer test and approval would be
- 3 one and a half months. Well interference report
- 4 would be submitted after two months. CPM would
- 5 review well interference report and determine if
- 6 it's complete after three months. Compensation
- 7 packages would be submitted after four months.
- 8 Should I slow down? Okay, I'm somewhat
- 9 repeating myself.
- 10 The CPM would have two weeks to review
- 11 -- excuse me. Okay. The CPM would review the
- 12 compensation package in two weeks, so that we're
- 13 up to four and a half months. The Applicant has
- one month to notice all of the well owners and
- 15 that -- of the approval of the compensation
- 16 package, so they have one month to contact
- 17 everyone. And then what we were proposing was
- 18 there would be -- I believe this says one month.
- 19 I'd have to check that out. One -- I think it's
- 20 two months. Okay, there's two months, then, for
- 21 the mitigation to actually occur, because you have
- 22 to have someone come out and do the work. So, I'm
- sorry, that's up to seven months.
- 24 PRESIDING MEMBER KEESE: Is there going
- 25 to be any baseline testing before the --

1 THE WITNESS: What kind of baseline

- 2 testing?
- 3 PRESIDING MEMBER KEESE: -- the
- 4 operation of the -- of the wells? Are you going
- 5 to test them? I had thought I heard previously
- 6 that -- that the wells in the vicinity that might
- 7 be impacted would be tested for a baseline before
- 8 the draw-down started.
- 9 THE WITNESS: We have not proposed that,
- and I don't think the Applicant has, either.
- 11 PRESIDING MEMBER KEESE: Thank you.
- 12 THE WITNESS: Now, as I said before, I
- 13 believe that the Applicant's proposal didn't talk
- 14 about how this timing would be different. I
- 15 believe their timing would be longer, a longer
- 16 period than ours. But until I see it written,
- that's one of the details that we still need to
- 18 find out about.
- 19 So there is a significant period of time
- 20 between the aquifer test and when the mitigation
- 21 could occur.
- 22 HEARING OFFICER BOUILLON: And you're
- 23 proposing that they only be allowed to use dry
- 24 cooling for those seven or eight months, the way I
- 25 added that up. Is that correct?

I I I I	E WITNESS:	mat's	correct.

- 2 HEARING OFFICER BOUILLON: And sketchy
- 3 as it is, what the Applicant is proposing, as I
- 4 understand it, is to provide -- to in another
- 5 manner provide water for the affected --
- 6 potentially affected landowners during that seven
- 7 month period.
- 8 PRESIDING MEMBER KEESE: The actually
- 9 impacted -- if they're actually impacted.
- 10 HEARING OFFICER BOUILLON: The actually
- impacted, or the potentially impacted?
- 12 THE WITNESS: Yes, the -- Mr. Keese is
- 13 correct that the Applicant is proposing to provide
- 14 water only to well owners who would have problems
- 15 with their well going dry. So only impacted well
- owners.
- 17 HEARING OFFICER BOUILLON: Impacted, or
- 18 actually going dry?
- 19 THE WITNESS: Actually going dry is what
- I mean by impacted. Yes.
- 21 HEARING OFFICER BOUILLON: I mean --
- THE WITNESS: Actually going dry.
- 23 HEARING OFFICER BOUILLON: -- you're not
- talking about the level dropping.
- THE WITNESS: Someone would call --

1 HEARING OFFICER BOUILLON: You're

- 2 talking about --
- 3 THE WITNESS: -- them and say my well
- 4 went dry. Quick, do something.
- 5 PRESIDING MEMBER KEESE: And at that
- 6 point, then you would have a choice of either
- 7 sending in another water supply or re-drilling the
- 8 well, or whatever the --
- 9 THE WITNESS: No, it wouldn't be the
- 10 Applicant's choice as to how the well would be
- 11 repaired. They wanted to -- they have proposed
- that that would be determined by an independent
- 13 engineer. What would be appropriate --
- 14 appropriate mitigation would be.
- 15 HEARING OFFICER BOUILLON: Okay.
- THE WITNESS: But that's just a detail.
- 17 I don't think that's what you were concerned
- 18 about.
- 19 HEARING OFFICER BOUILLON: Ms. Holmes,
- do you have more?
- MS. HOLMES: No.
- 22 HEARING OFFICER BOUILLON: Mr. Turner,
- do you have cross?
- MR. TURNER: No, I don't have cross for
- Ms. Bond.

1	MS. CROCKETT: Just
2	HEARING OFFICER BOUILLON: Ms. Crockett?
3	MS. CROCKETT: Yes, just one quick
4	question for Ms. Bond that came up during all
5	this.
6	RECROSS EXAMINATION
7	BY MS. CROCKETT:
8	Q We've all assumed that we've been
9	discussing the plant could do a wet cooling
10	operation in order to do the aquifer test.
11	My question is, Ms. Bond, is the plant
12	capable of handling the 40 hours of pumping for
13	the aquifer test?
14	A If the plant is operational, then the 40
15	hours of water could be used for wet cooling.
16	Q There is enough capacity in the cooling
17	towers and usage that the 40 hours would not
18	overload the plant?
19	A I that's what I understand from the

- information the Applicant has given me. MS. CROCKETT: Okay. That was our -- it 21
- 22 just dawned on me when you were talking that we
- 23 hadn't really explored that. That is $\ensuremath{\mathsf{my}}$ one
- 24 question. Thank you.

20

25 HEARING OFFICER BOUILLON: Thank you.

1

1	THE WITNESS: Okay.
2	HEARING OFFICER BOUILLON: Thank you.
3	Ms. Crockett, I believe you have one
4	additional witness. Would that just take a couple
5	of minutes?
6	MS. CROCKETT: Absolutely. Yes. Mr.
7	Hathaway. He has not been sworn.
8	(Thereupon Abe Hathaway was, by the
9	reporter, sworn to tell the truth, the
10	whole truth, and nothing but the truth.)
11	TESTIMONY OF
12	ABE HATHAWAY
13	called as a witness on behalf of the Intervenor,
14	having first been duly sworn, was examined and
15	testified as follows:
16	DIRECT EXAMINATION
17	BY MS. CROCKETT:
18	Q Mr. Hathaway, you have been present at
19	all of the telephone conferences most of the
20	telephone conferences and most in all of the

21 meetings that we've had in trying to work on the 22 water quality -- water resources qualifications, 23 Conditions of Certification; is that correct? 24 A For the Soil and Water Errata.

25 Q For Soil and Water.

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1 A Yes, I have.
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timelines.

our location.

9

- 2 Q You have some concerns, as well, and if 3 you would briefly go over those.
- A My specific concern is that when you

 have a conceptual agreement that everyone is

 working on, unfortunately the concepts can be

 batted around and everybody is comfortable with

 the concepts, but I need dates and times and
- I also have a concern about the timing

 of the test in regards to completion of the

 aquifer, specific aquifer test in relationship to

 the operation of the plant. The timeline for

 mitigation, and how the mitigation can be extended

 out to seven months. For a production well seven

 months is a -- is an entire irrigation season in
- 18 So if there is interference or -- a

 19 residential well, it either provides water or it's

 20 dry. And a production well, it can cost you a lot

 21 of money, additional money to produce the same

 22 amount of water. So my concern is -- is how that

 23 impact will be mitigated in a timely enough

 24 fashion that -- that there's not a loss.
- I also have a question on -- on the

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1 independent contractor that's going to test. Is
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- 2 that agreed upon by the well owner and the
- 3 Applicant? And I understand that the -- the CPM,
- 4 the Compliance Project Manager, is going to be the
- one that reviews the -- all the data that's
- 6 submitted by the Applicant. I believe that the
- 7 affected parties should also have purview to all
- 8 that information, also.
- 9 Q So in the conceptual stage, there's a
- 10 lot of concern because of these omissions or more
- details to be worked out.
- 12 A Lack of understanding of -- of those
- details, yes.
- 14 Q Would you clarify to Mr. Keese and Mr.
- 15 Bouillon. They're not aware of your pumping needs
- and what happens when that pumping is not
- 17 available and how much water you're using during
- 18 this irrigation time. That needs to be clarified.
- 19 A We have a production well that -- that's
- 20 driven by a 90 horsepower diesel engine. It has
- 21 the capabilities of producing 1800 gallons a
- 22 minute depending upon the -- the contract seed
- 23 crops that we produce. Last year we had 70 acres
- of garlic that required 24 hour a day pumping from
- 25 May 10th through September 17th. This year we're

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1 looking at additional seed -- carrot seed and
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- 2 sugar beet seed, and possibly some cantaloupe
- 3 seed.
- 4 So, unfortunately, if the water drops
- 5 below our bowls -- it's not just a little bit of
- 6 water that we need. And the Applicant has -- the
- 7 Applicant has addressed it conceptually, but --
- 8 but I'm not sure that -- that that amount of water
- 9 could be delivered.
- 10 HEARING OFFICER BOUILLON: I'm sorry,
- 11 Mr. Hathaway. Did you say 100 gallons per minute?
- 12 THE WITNESS: Eighteen hundred gallons a
- 13 minute.
- 14 BY MS. CROCKETT:
- 15 Q One other clarification. Are you the
- only rancher within this vicinity of the plant
- 17 that has the same needs?
- 18 A No.
- 19 Q Also, we had discussed earlier this
- 20 morning that we might have one suggestion to help
- 21 this area along.
- 22 A I believe the issue of water is -- is
- 23 significant enough to the Burney Resource Group
- and myself that we would be willing to extend the
- 25 process and leave the evidentiary record open, and

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1 -- and meet you in Sacramento at any time
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- 2 appropriate for the Committee and -- and Staff and
- 3 the Applicant, so that we could finish it in this
- 4 part of the record.
- 5 My -- our concern is that you see the --
- 6 the extent of the legal advice that Burney
- 7 Resource Group has sitting in front of you, and
- 8 there's three of us. When briefs are filed and
- 9 shipped around rapidly, and for us to comment, we
- 10 comment in lay terms. And -- and I'm afraid that
- our comments -- it's not that they would be put
- 12 aside, but they wouldn't be clearly understood as
- 13 -- as the Applicant has the opportunity and Staff
- 14 has the opportunity to have counsel with them as
- they draw up their concerns.
- So if we go to briefs and -- and
- 17 meetings to try to solve it, I'm sure there'd be a
- solution, but we can clearly hold the process up
- 19 because we'd have to be making sure that what
- 20 we're saying is -- is what we really want to say.
- 21 Q Just for clarification, we are
- 22 discussing only this one issue, just specifically
- 23 this one issue --
- 24 A This Errata. That's right.
- 25 Q -- for an extra day to be in the

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1 evidentiary process.
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- 2 A That's correct.
- 3 MS. CROCKETT: Thank you. Is there
- 4 anymore that you -- he is available for cross.
- 5 PRESIDING MEMBER KEESE: One quick
- 6 question, since he raised the issue.
- 7 How many commercial or agricultural, or
- 8 what -- large water users do you think are in the
- 9 impact zone?
- 10 THE WITNESS: Two.
- 11 PRESIDING MEMBER KEESE: Two. And how
- 12 many residential?
- 13 THE WITNESS: From the proposed location
- and the radius north, I have no idea.
- 15 PRESIDING MEMBER KEESE: Large or --
- it's not a large number.
- 17 THE WITNESS: Burney's not a large area.
- 18 PRESIDING MEMBER KEESE: Right. Okay,
- 19 thank you.
- 20 HEARING OFFICER BOUILLON: Mr. Hathaway,
- 21 the other agricultural operation, how large is it?
- 22 THE WITNESS: The other --
- 23 HEARING OFFICER BOUILLON: In comparison
- to yours.
- 25 THE WITNESS: Their water needs are

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similar, or even greater. They grow wild rice.

1

22

23

24

2	HEARING OFFICER BOUILLON: I'm not sure
3	you're the right person for me to ask this of, Mr.
4	Hathaway, but the Burney Resource Group, with
5	regard to Soil and Water Condition Number 11 and
6	the Errata, has requested a draw-down trigger of
7	two feet rather than five feet. Are you
8	THE WITNESS: I'm I'm purview to
9	that, and
10	HEARING OFFICER BOUILLON: competent
11	to discuss that?
12	THE WITNESS: let me tell you our
13	reasoning behind that. When you're not a
14	hydrologist and you're not lawyers, then you're
15	dependent upon people who service and install
16	wells. And the University of California at Davis
17	provides us with with guidelines, so that when
18	people when we pay \$10,000 to have a well
19	installed, we want to make sure that that the
20	person that's installing it does it correctly.
21	And what most of those documents

recommendation of -- of the manufacturer of the

pump, say it's a Hayes or a Berkeley, or whatever,

represent is that above and beyond the

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1 head of water placed above that pump for safety.
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- 2 Just -- just to allow the bowls to operate
- 3 submerged.
- 4 And so when they talk about a five foot
- draw-down, we realize that that five foot draw-
- 6 down and a two or three foot draw-down, there's a
- 7 significant difference. But -- but if you remove
- 8 that safety head from the manufacturer's already
- 9 suggested, then we -- our concern is that, you
- 10 know, the top bowl may become dry and spin air,
- and we've lost the whole shed. In the worst case.
- 12 And -- and I think the mitigation has to be
- 13 written worst case.
- 14 HEARING OFFICER BOUILLON: Mr. Turner,
- do you have any cross examination?
- MR. TURNER: I have just one question.
- 17 CROSS EXAMINATION
- 18 BY MR. TURNER:
- 19 Q Mr. Hathaway, these documents to which
- 20 you just referred in your last answer, could you
- 21 be more specific as to precisely what you're
- 22 referring to? I mean, you mentioned UC Davis, but
- 23 can you give me some additional context to that,
- 24 please?
- 25 A The University of California at Davis

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1 provides, it's referred to as an Irrigation
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- 2 Handbook. If -- if you look at Berkeley Pumps and
- 3 -- and all those small residential submersible
- 4 pumps, in their installation guidelines they will
- 5 tell you the -- the amount of water that should
- 6 safely be -- how deep it should be, and how
- 7 efficient it'll operate, and they give you a list
- 8 of parameters. And it's just general information
- 9 that -- that you glean and read.
- 10 Q And the Irrigation Handbook, that is the
- 11 name of the document that you're referring to, the
- 12 UC Davis document? Is that the -- to the best of
- your knowledge, the title of that document?
- 14 A It -- yes. It's got authors, and it's
- got -- it's a standard university document.
- MR. TURNER: That's all I have.
- 17 HEARING OFFICER BOUILLON: Ms. Holmes.
- MS. HOLMES: I have one question.
- 19 CROSS EXAMINATION
- BY MS. HOLMES:
- 21 Q Mr. Hathaway, if the aquifer tests can't
- 22 be conducted until the plant is operational, due
- 23 to the lack of storage, would the dry cooling for
- 24 the time between the completion of the aquifer
- 25 test and the implementation of what we're calling

1 the permanent mitigation, as Staff has proposed,

- would that address your concerns?
- 3 A That would alleviate the -- the use of
- 4 the aquifer, yes.
- 5 MS. HOLMES: Thank you.
- 6 MR. TURNER: I have one follow-up in Ms.
- 7 Holmes' question, if I might.
- 8 RECROSS EXAMINATION
- 9 BY MR. TURNER:
- 10 Q Mr. Hathaway, apropos the question that
- 11 Ms. Holmes just asked you. Likewise, if Three
- 12 Mountain Power were able to provide a commercial
- 13 well owner such as yourself with an alternative
- 14 water supply during this period, after operation
- and before completion of the aquifer test, if you
- 16 needed water, would that also adequately address
- your needs, assuming that it got there promptly?
- 18 That alternative water supply got there promptly.
- 19 A At the pressure and -- and gallonage
- that I require?
- 21 Q Yes.
- 22 A Yes.
- MR. TURNER: That's all I have.
- 24 HEARING OFFICER BOUILLON: Thank you.
- 25 MS. HOLMES: Can I ask one more question

1	with	respect	to	that	question?

- 2 HEARING OFFICER BOUILLON: I'm going to
- 3 give Ms. Crockett a chance in between here. She's
- 4 -- we've skipped her a couple of times.
- 5 Do you have any redirect?
- 6 REDIRECT EXAMINATION
- 7 BY MS. CROCKETT:
- 8 Q I just have one, and that question would
- 9 be that there would have to be time parameters for
- 10 his --
- 11 HEARING OFFICER BOUILLON: No, no, no.
- Do you have a question for the witness?
- 13 BY MS. CROCKETT:
- 14 Q Would you have other parameters besides
- 15 pressure and volume?
- 16 A It was my understanding it was immediate
- 17 delivery, from the -- from the question. So -- so
- 18 the time parameter is -- would be immediate,
- 19 especially if it's July or August.
- 20 MS. CROCKETT: Okay. Thank you.
- 21 HEARING OFFICER BOUILLON: Ms. Holmes.
- MS. HOLMES: Thank you.
- 23 RECROSS EXAMINATION
- 24 BY MS. HOLMES:
- 25 Q Has Three Mountain Power presented

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1 enough information to you in their proposal that

- 2 you believe that your -- that they have ensured
- 3 that your concerns will be addressed?
- 4 A No.
- 5 MS. HOLMES: Thank you.
- 6 HEARING OFFICER BOUILLON: I believe
- 7 that -- well, let me --
- 8 (Inaudible asides.)
- 9 HEARING OFFICER BOUILLON: Thank you,
- 10 Mr. Hathaway. The witness is excused.
- 11 We could break for lunch now, but I --
- 12 the Committee has decided that there's a Mr. Angel
- Winn in the audience, representing the Pit River
- 14 Indians. And in the nature of Public Comment,
- we're going to allow him to make a statement at
- 16 this time. And I'm going to ask him to do it from
- 17 the witness stand where the microphones are
- available, both for recording and amplification.
- So, Mr. Winn, if you'd come up here.
- 20 And then we will break for lunch. However, I
- 21 would like to announce at this time that after we
- 22 -- when we resume after lunch, that we're going to
- ask Mr. McFadden to retake the stand, and we'd
- 24 like to ask him some questions about the ability
- 25 to perform dry cooling for the seven or eight

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1 month period we've been talking about, and
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- 2 questions related to what we've been discussing
- 3 for the last hour or so.
- 4 MR. TURNER: You have read Mr.
- 5 McFadden's mind.
- 6 HEARING OFFICER BOUILLON: So you might
- 7 like to discuss that with your Counsel, Mr.
- 8 McFadden.
- 9 Mr. Winn, if you'd identify yourself,
- 10 and your affiliation.
- MR. WINN: Yes.
- 12 HEARING OFFICER BOUILLON: You don't
- need to be sworn in as a witness.
- MR. WINN: My name's Angel Winn. I'm
- 15 Vice Chairman for the Pit River Tribe.
- And in the past, it's been many months
- 17 ago that we've talked with Danielle as far as
- 18 Cultural Resources. But the issue today -- oh, is
- 19 it okay if I stand?
- 20 HEARING OFFICER BOUILLON: We prefer
- 21 that you sit, because the recording can pick up
- 22 better.
- MR. WINN: Oh, I'm sorry. Okay.
- 24 Anyways, in regards to this Three
- 25 Mountain Power Project, I've received this

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information on the Final Staff Assessment, Phase
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- 3, or however it's titled here. And I just want
- 3 to read a part of that.
- It says, the Three Mountain Power
- 5 Project electric generating plant and related
- facilities, such as electric transmission line,
- 7 natural gas pipeline, and waterlines, are under
- 8 the Energy Commission's jurisdiction and cannot be
- 9 constructed or operated without the Energy
- 10 Commission's certification.
- 11 And what I'd like to read to you is --
- is the first page off of our Tribal Constitution,
- 13 which was signed by the Secretary of the Interior.
- 14 And if you'll just give me a few minutes to read
- this to you. Just, I have been directed by my
- 16 Tribal Council, which is the governing body of our
- 17 -- of our tribe, which is -- it's a little
- 18 different than other tribes, whereas our council
- 19 directs our chairman to enter into agreements, and
- as far as to that effect, I just want to state
- 21 that.
- So, the Pit River Tribe, a tribe of 11
- 23 autonomous bands of Indians that adopted a formal
- 24 written constitution on August 16th, 1964, for the
- 25 purpose of securing our rights and powers inherent

in our sovereign status, as reinforced by the laws

- of the United States developing and protecting Pit
- 3 River, Ajumawi, Atsugenwi, and ancestral lands and
- all other resources; preserving peace and order in
- our community; promoting the general welfare of
- 6 our people and our descendants; protecting the
- 7 rights of the tribe and of our members; and
- 8 preserving our land, race, culture, and identity,
- 9 does hereby establish this revised constitution.
- 10 Article 1, Name. This is stating who we
- 11 are. The name of this entity is the Pit River
- 12 Tribe, Ajumawi-Atsugenwi Nation, comprised of 11
- 13 autonomous bands. And they are the Ajumawi,
- 14 Atsugenwi, Atwamsini, Ilmawai, Atstarawai,
- 15 Hammawi, Hewisedawi, Itsatawi, Aporige,
- 16 Kosalektawi, and Mades, that since time memorial
- 17 have resided in the area known as the One Hundred
- 18 Mile Square, located in parts of Shasta, Siskiyou,
- 19 Modoc, and Lassen Counties in the State of
- 20 California, as referred to in Pit River Docket
- 21 Number 347, parentheses, 7 ICC 815 at 844 Indians
- 22 Claims Commission.
- 23 And further, Article 2, Territory and
- 24 Jurisdiction. Section 1, Territory. The
- 25 territory of the tribe consists of all ancestral

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lands recognized by the Indian Claims Commission
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- in its July 29th, 1959, Seven Indians Claims
- 3 Commission, 815, 853 -- 863, excuse me, Appendices
- 4 A and B, pages 1 through 49.
- 5 Findings of Fact and Opinion in Docket
- 6 347, i.e., the One Hundred Mile Square described
- 7 in Docket Number 347, and specifically including,
- 8 but not limited to -- and I want to express that
- 9 again, but not limited to, the XL Ranch,
- 10 Montgomery Creek, Roaring Creek, Big Bend, Burney,
- 11 Lookout, and Likely Rancherias. The 13 acres
- deeded to the United States by the State of
- 13 California in trust for the Pit River Home and
- 14 Agricultural Cooperative Association, as trustee
- for the tribe. Modoc County Assessor's Parcels,
- 16 and it has the numbers here, 013-172-07 and 013-
- 17 191-01, and any other property that hereafter may
- 18 be acquired by or for the tribe.
- 19 Section 2 is Jurisdiction. And this is
- 20 why I'm here. The jurisdiction of the tribe under
- 21 this constitution shall extend throughout its
- 22 territory. Nothing in this article shall be
- 23 construed to limit the ability of the Pit River
- 24 Tribe, Ajumawi-Atsugenwi Nation, to exercise its
- 25 jurisdiction to the fullest extent permitted by

federal law, including, but not limited to, lands,

- waters, properties, air space, fish and wildlife,
- 3 and other resources.
- 4 And this is signed by the Secretary of
- 5 the Interior. So by law, the state or any federal
- 6 agencies, they're supposed to have a government to
- 7 government relationship with our people. And as
- 8 far as -- the only people that have come and
- 9 addressed us from Three Mountain Power has been
- 10 Danielle, and that is -- is related to Cultural
- 11 Resource issues.
- 12 But it is -- I have been directed by my
- 13 Council to come here to speak that, on behalf of
- our tribe, that we're asking that the -- the
- 15 California Energy Commission and Three Mountain
- Power, that we be a part of that process of this
- 17 relicensing, and not to be here as just as -- as
- 18 the public, which is -- you know, we're a
- 19 governing agency, and we would -- we're asking for
- 20 that.
- 21 So that's what I'd like to say right
- 22 now, you know.
- 23 HEARING OFFICER BOUILLON: Thank you,
- 24 Mr. Winn. I'd appreciate it if you could give the
- 25 Committee a copy of that, the first couple

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1 articles of that constitution.
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- 2 MR. WINN: Sure, no problem. I can --
- 3 yeah, I can do that.
- 4 Just -- just to comment further, you
- know, about some of the comments that I've heard
- 6 about the -- the uncertainty of water and the
- 7 aquifer, you know, because a lot of the -- the way
- 8 the water travels under the ground up there,
- 9 because of the volcanic tunnels and such, is that
- 10 I don't know if a lot of you are aware that the
- 11 Burney water -- Burney Creek disappears into the
- ground, and then it comes out of the ground again
- 13 up above Burney Falls. And so when you start
- 14 drilling or doing things, you know, to the -- to
- 15 the water, to the -- in that area, that, you
- 16 know, if you bust something loose, that it might
- 17 not be there again.
- 18 Also, that in the area of just some
- 19 natural things, as far as rising river, you know,
- just that whole area is real unique, and I heard
- 21 some comments about Hat 1 and 2, whether that is
- 22 affecting the Burney aquifer or not, and such, you
- 23 know, and this one gentleman said that's all
- 24 speculation. You know, I'm not here to litigate
- 25 that or argue that. But I just wanted to make

1	that comment. And if I'm off base, I apologize.
2	And I wanted to be here yesterday, but I was in
3	Fresno, had to go to a funeral.
4	So I'm asking that the CEC be able to
5	contact the tribe and to involve us in part of
6	this licensing, to hear more of our views about
7	the resources besides just Cultural Resources.
8	And this this project is on a cultural site.
9	Thank you.
10	PRESIDING MEMBER KEESE: Thank you.
11	HEARING OFFICER BOUILLON: Thank you.
12	PRESIDING MEMBER KEESE: Okay. We'll
13	take lunch. We'll be back here you want to try
14	1:30? Does that that's 55 minutes, is that
15	okay, 1:30.
16	(Thereupon the luncheon recess was
17	taken.)
18	
19	
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1	AFTERNOON SESSION
2	PRESIDING MEMBER KEESE: Mr. Bouillon.
3	HEARING OFFICER BOUILLON: Mr. McFadden
4	would you resume the witness stand, please.
5	TESTIMONY OF
6	MARTIN McFADDEN
7	called as a witness on behalf of the Applicant,
8	having previously been duly sworn, was examined
9	and testified as follows:
10	HEARING OFFICER BOUILLON: Mr. McFadden
11	the testimony this morning indicated that with
12	regard to the Soil and Water Conditions in Exhibit
13	80, that there were what the Committee feels are
14	significant differences between your conditions
15	your idea of what the condition should be, or the
16	parameters for them, and what the Staff has
17	proposed.
18	And with regard to the aquifer test and
19	its ramifications, Ms. Bond indicated that there
20	could be as much as a seven or eight month delay
21	between the time of the aquifer test and the time
22	mitigation was accomplished, and that during that
23	time, under the Staff's proposal, except for the
24	water from the aquifer test itself, the Applicant
25	would be required to use only a dry cooling

1 method. Are you familiar with that testimony?

- MR. McFADDEN: Yes, I am.
- 3 HEARING OFFICER BOUILLON: First of all,
- 4 taking into account that the aquifer test might be
- 5 run first in the winter, or second, in the summer,
- 6 would it be possible under the design of the
- 7 system to run the plant on dry cooling only for,
- 8 say, seven months?
- 9 MR. McFADDEN: No, Mr. Bouillon, it's
- 10 not possible to run the plant on a dry cooling
- only, if you're characterizing that as the use of
- 12 no water at all.
- Our mitigation plan proposed a wet and
- 14 dry hybrid cooling system, and at all times, and
- it's clearly shown in the mitigation plan, there
- is a requirement for use of water, at least some
- 17 water, and the minimum amount of water use is for
- 18 processed cooling, meaning turbine lube oil and
- 19 air inlet cooling, and then perhaps a few other
- 20 minor uses. So there's always a requirement that
- at least some water be used for the plant to
- 22 operate.
- 23 HEARING OFFICER BOUILLON: And what is
- that amount of water?
- MR. McFADDEN: I believe the minimum

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1 amount is on the order of 200 gallons a minute in
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- 2 the winter time, but it would be somewhat higher
- 3 in -- in the summer time, but I can't be sure.
- 4 HEARING OFFICER BOUILLON: But in the
- 5 magnitude of multiples of the 200, can you make a
- 6 -- hazard a guess?
- 7 MR. McFADDEN: Two, two and a half
- 8 times, I would guess. And qualifying it that it's
- 9 a guess.
- 10 HEARING OFFICER BOUILLON: Is it
- 11 substantially more costly for the Applicant or the
- 12 plant operator to run the plant on the dry cooling
- portion of your system than it is the wet cooling?
- MR. McFADDEN: The cost is not in -- in
- 15 a direct cost. It is a cost that is in -- in lost
- 16 revenue, and it's a severe -- it's a severe
- impact. There's two impacts that are related to
- 18 -- to the dry cooling that we foresee, that would
- 19 probably preclude the -- preclude going forward
- 20 with the project. As we had stated many times
- 21 previously, we could not move this project forward
- on -- on dry cooling alone, and if you'll allow me
- 23 to explain.
- 24 The business arrangement that we
- 25 anticipate for this project, which is very common

for almost all the projects that are going forward

- 2 in California, is for there to be a project
- 3 financing. And the use of dry cooling in our
- 4 application, restricting our cooling use, I should
- 5 say, to that minimum amount, would cause an
- 6 uncertainty in cash flow that's necessary to repay
- 7 the financing.
- 8 As you attempt to receive financing from
- 9 a financial institution, they will look at your
- 10 business projections and they will evaluate the
- 11 certainty of those business projections and
- determine if you are an acceptable lending risk.
- 13 The possibility that a huge amount of that revenue
- 14 would not be available because of the inability to
- 15 meet a condition of certification would cast such
- 16 uncertainty on the project because it happened --
- would be happening early in the project, that it
- would probably render the project financially
- 19 infeasible.
- 20 HEARING OFFICER BOUILLON: With regard
- 21 to the timeline that Ms. Bond testified to, does
- 22 the Applicant agree that, in general terms, that
- 23 the seven or eight month process she spoke of
- 24 would be required if -- if the Staff's
- 25 recommendations were adopted?

1 MR. McFADDEN: Let me answer that with 2 yes and no, and then, if I may, a little bit of a 3 lengthy explanation.

We have talked, and I think the Staff and the Applicant have a similar sequence of events that's necessary to accomplish the mitigation. And the mitigation that's outlined in the sequence of capacity test, aquifer test, well interference analysis and calculation, proposal of mitigation, and effecting of mitigation, is in the normal time, in the normal Conditions of Certification, it'll take up to seven months because all of the time limits in the Conditions of Certification are up to, this'll happen within this many days, and so on. You add them up and it's about seven months, I think.

And we would expect in the timeline that we envision as the most highly probably timeline for the project that, yep, it'll take about that long. And the most highly probably timeline that we envision for the project is that all of the testing and all the mitigation will be done before — before the commissioning.

24 And what we're doing in this -- in this 25 mitigation that's being done in advance is we are

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1 mitigating the long term projected impacts due to
```

- 2 well -- well draw-down. These impacts are
- 3 calculated based on the 30 year operation of the
- 4 life of the project. They're not an estimate of
- 5 the immediate impact that would happen by starting
- 6 to pump, and pumping for a short period of time.
- 7 They're calculated based on the aquifer
- 8 characteristics applied with the plant in
- 9 operation and drawing its maximum water, and
- 10 contrasting that to the same aquifer
- 11 characteristics and no pumping taking place due to
- 12 the plant. And that calculation is done over the
- 30 year life of the plant.
- 14 And we think that's an appropriate
- 15 mitigation. But it presents us, in the way the
- 16 structure is now, with a risk factor that is --
- that is basically unacceptable, and the way we
- 18 have tried to deal with that risk factor that is
- 19 unacceptable is to say that in the unlikely event
- 20 that there is a -- that the test cannot be
- 21 completed on the timeline, there is still an
- 22 opportunity for us to move forward, complete the
- 23 project, and operate, and mitigate the very
- unlikely immediate impact, which also, by the way,
- 25 would be identified if the aguifer test were able

- 1 to be -- to be performed.
- 2 So the timeline that we envision for
- 3 this project is that, as -- as you know, and it's
- 4 in evidence, at least in the administrative
- 5 record, we have entered into a water service
- 6 agreement with the Burney Water District, and as
- 7 part of that water service agreement we have
- 8 committed to provide them with certain capital
- 9 improvements that will allow the water service to
- 10 be provided to Burney Water District.
- 11 Also, it's known that the Burney Water
- 12 District is in the process of completing a system
- 13 upgrade to their -- to their system, what's called
- 14 the EDA project. And part of that project is an
- increase in storage. The Burney Water District
- has asked us, and we have agreed that we will
- 17 consider, and we'll make the decision here very
- shortly, instead of putting in the two million
- 19 gallon tank that's required for the -- the EDA
- 20 proposal, we'll put in a four million gallon tank.
- 21 And that decision will be made prior to the board
- 22 meeting in January for the Burney Water District,
- and I expect at this time that we would go forward
- 24 and authorize that.
- In that case, the four million gallon

tank, which is partially the crux of this issue,

- would be installed by about August of next year,
- 3 2001. But then in order to do the tests, the
- 4 other capital improvements that we've committed to
- 5 in the Burney Water District agreement, the new
- 6 wells, the interconnecting piping to close off the
- 7 loop to make the system complete, would have to be
- 8 completed. And we anticipate that those would
- 9 take on the order of a year, but certainly no more
- 10 than about 15 months. So they would be available
- in August of 2002, which would give us nine to
- 12 eleven months to complete the test, which should
- 13 be plenty of time.
- But one of the problems is that there's
- an uncertainty in the aquifer test, because the
- 16 specific capacity test provides the parameters for
- 17 locating, the observation -- no, they're not
- observationals, excuse me -- the monitoring wells
- 19 for the aquifer test. So in the sequence we do
- 20 the specific capacity tests, and we can do those
- 21 very early. From what Ms. Bond said about them
- 22 being done to determine the right size for the
- 23 final pump, that -- that all tracks, and that all
- 24 tracks with what Mr. Suppa has told me about the
- 25 ability -- you know, as soon as the hole's in the

1 ground, we can find out what this thing will do

- 2 kind of a discussion.
- 3 So we'll know some information from the
- 4 specific capacity test, and we have to translate
- 5 that into locating monitoring wells for the
- 6 aguifer test. And there's a condition in the
- 7 Conditions of Certification, as they stand now,
- 8 that says that you'll drill the monitoring wells
- 9 and you'll use them in the aguifer test, and the
- 10 test is unacceptable if there's no measurable
- 11 draw-down.
- Now, if there's no measurable draw-down
- in the -- in the observation wells -- or, excuse
- me, the monitoring wells, that in itself is an
- indication, not a conclusive indication, but a --
- an indication nonetheless, that there's not going
- to be a problem. But it doesn't define the
- 18 characteristics of the aquifer that are necessary
- 19 to complete the next steps of the five stage
- 20 schema that we and the Staff have been talking
- about.
- 22 And so that means that the test needs to
- 23 be redone. The monitoring wells need to be
- 24 replaced, perhaps, relocated. It -- it puts
- 25 delays and uncertainty into the completion of that

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1
         particular Condition of Certification. And the
 2
         delays in that Condition of Certification then put
 3
         uncertainty into the completion of the project on
 4
         its schedule, and then that, of course, puts the
 5
         uncertainty into the cash flow, which kills the
 6
         project. So we have the chain of events.
         Unfortunately, we have dominoes lined up here, and
 8
         we're going to knock one of them off with these --
         with this aguifer test if we can't perform it.
 9
10
                   Now, I have been -- I'm questioning the
11
         experts, and I'm not portraying myself to be a
         water expert, that 40 hours, which is about the
12
13
         capacity of the four million gallon tank, is
14
         probably enough. But in order to reach an
15
         equilibrium to determine whether or not you're
         going to see a draw-down in the monitoring well,
16
17
         the test needs to run from one to five days, is
18
         what I've been told. And so the capacity of the
19
         monitor -- of the -- of the wells runs out after
20
         44.4 hours. Or the -- not the monitoring well,
21
         excuse me. The tank runs out after 44.4 hours.
22
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That -- that level of uncertainty says it's distinctly possible, says to me, and it'll certainly say it to a banker, that it is distinctly possible that you won't be able to

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successfully complete an aquifer test in the --

during the construction time of the plant. So

what are you going to do?
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And our proposal to mitigate this is that recognizing that not getting draw-down in the monitoring wells represents an indication that there's -- there's less of a problem, and recognizing that we are trying to mitigate a long-term impact measured over the probable 30 year life of the plant, that we should be allowed to do the test during the commissioning phase, and if there is a very unlikely immediate impact to any well owner, then mitigate that specific impact by providing them with replacement water.

Now, if that circumstance happens, the timeline isn't seven months. The timeline is as fast as it can get done. And that only depends upon exactly what work needs to be done, and the cooperation of the landowner. In the worst case, it's the requirement for -- for drilling, piping, and powering in a new -- a new well.

HEARING OFFICER BOUILLON: Speaking of this replacement water, if you're talking about 1800 gallons a minute, 24 hours a day, such as the needs of Mr. Hathaway, or Hathaway Ranch, outside

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of a new well, do you -- is there any capacity in
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- the Burney Basin to provide that kind of water?
- MR. McFADDEN: Well, there may be. And
- 4 -- and I think that we would have the potential
- 5 ability to get the water from the Burney Water
- 6 District because their waste treatment facility
- 7 has a -- a water connection, at it -- you know, a
- 8 freshwater connection, at its location, which is
- 9 also immediately adjacent to our power plant. And
- in addition, the Three Mountain -- excuse me, the
- 11 Burney Mountain power well could be used to
- 12 provide that -- that water, potentially, some of
- 13 that water.
- I -- at this point I don't know of any
- other immediate sources, or immediate ways to do
- 16 it, but I would say that when we get to this point
- of notification from Mr. Hathaway that there's a
- 18 problem, we will have already been alerted to the
- 19 fact that we have not been able to successfully
- 20 complete an aquifer test, and we would be making
- 21 whatever preparations are necessary to respond to
- 22 immediate -- immediate coverage of his needs, and
- we can do that working with Mr. Hathaway.
- 24 PRESIDING MEMBER KEESE: Let me ask,
- 25 what -- what is the maximum capacity of your

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wells?
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- 2 MR. McFADDEN: My wells, being the
- 3 Burney Mountain Power wells --
- 4 PRESIDING MEMBER KEESE: Right.
- 5 MR. McFADDEN: -- or the project wells?
- 6 PRESIDING MEMBER KEESE: Burney --
- 7 MR. McFADDEN: I think the Burney
- 8 Mountain power well's rated at 750 gallons a
- 9 minute.
- 10 PRESIDING MEMBER KEESE: So that
- wouldn't supply all of Mr. Hathaway's needs.
- 12 MR. McFADDEN: No, it would not be able
- to supply all of it.
- 14 PRESIDING MEMBER KEESE: But it's also
- unlikely that you would take his whole supply,
- 16 since you're not -- you're taking about a third of
- 17 it.
- 18 MR. McFADDEN: I -- see, that's what I
- 19 think, Mr. Keese, that it's -- it's unlikely that
- we would cause this significant immediate impact.
- 21 The calculations that we're doing to determine
- 22 whether there's an impact or not are -- are based
- on the 30 year life of the -- of the project, and
- 24 are not likely to show up -- to show up
- 25 immediately. So there is -- there does represent

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1 some time. But we did want to reflect the
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- 2 possibility that even though it's very remote,
- 3 there could be an immediate -- immediate impact of
- 4 the water being lowered below the -- the intake
- 5 mechanism, as Ms. Bond said.
- 6 PRESIDING MEMBER KEESE: How -- do you
- 7 have an idea on how many wells we're dealing with
- 8 that are in the impact area? The reasonable
- 9 impact area.
- 10 MR. McFADDEN: If the impact area is
- drawn as a circle of two mile radius, my
- 12 recollection is that I've seen pictures that have
- 13 about 35 wells.
- 14 PRESIDING MEMBER KEESE: We were --
- 15 since we were only privy to these things yesterday
- also, we were attempting to discern, is the scheme
- 17 that's been put together in the -- in your
- interpretation of the Staff's proposal here, are
- 19 you obligated to mitigate any well that has a
- 20 problem over 30 years? Or are you only obligated
- 21 to do an analysis once and mitigate those that
- indicate they might have a problem?
- MR. McFADDEN: We are -- we are
- 24 proposing to mitigate those wells that show a
- 25 calculated projected impact. And the calculation

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1 is done based on the aquifer parameters and agreed
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- 2 upon approved methodology.
- 3 MS. PRAUL: I just need to clarify. If
- 4 we put aside for the moment the financing
- 5 uncertainty, is it technically feasible to
- 6 implement the Staff's proposal for dry cooling for
- 7 a seven month period, not to exceed.
- 8 MR. McFADDEN: No, if dry cooling means
- 9 no water use. The plant is a hybrid cooled plant.
- 10 MS. PRAUL: Okay. But if -- if you used
- 11 your minimum and your -- and dry cooled for seven
- months.
- MR. McFADDEN:: Then it's technically
- 14 feasible to operate the plant at some reduced
- power level, presumably then depriving the
- 16 customers of California the opportunity to buy it,
- 17 and -- and causing severe financial impact, as I
- described earlier, to the project.
- 19 MS. PRAUL: So, as I understand that
- 20 financial impact, that is one of uncertainty. And
- 21 I am not persuaded that -- that if it's known by
- 22 all the parties and the bank that this is a
- 23 specific seven month period for a particular
- 24 reason, that that's uncertainty. It's just
- 25 something that you know you need to explain to

MR. McFADDEN: And I think that's the --

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1 them, and cover with subsequent revenues.
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21

22

3 there's two issues related to that. The first is 4 the coverage of them with -- with later issues, or 5 later revenues. There's two impacts at -- at work, and one is the timing of the revenues. The misplaced revenues, the lost revenues, would occur 8 early in the operation of the plant, and those early revenues for the operation of the plant are 9 10 most critical for the successful project from an 11 equity perspective of the power plant. And that, 12 in particular, is our perspective, as well. 13 But with respect to the -- to the 14 lenders, they will either require a reserve 15 against that amount of money, or they will lower the amount of money that they are willing to lend. 16 And this is the same thing that you would find in 17 18 a -- in trying to obtain a household mortgage. If 19 you have a known period of seven months where you 20 don't have a job, they'll take that into account

23 And that is potentially such a length of 24 time, and -- especially if it happens in the 25 summertime, it would have such severe consequences

a loan and what the repayment terms are.

in determining your -- the amount you can get for

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that the amount of loan available would not allow
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- 2 us to build the project, or the amount of reserve
- 3 would make the equity investment infeasible.
- 4 MS. PRAUL: So a 30 year revenue stream
- is going to be jeopardized by an incrementally
- 6 reduced first seven months.
- 7 MR. McFADDEN: Yes, ma'am, because it's
- 8 not a small increment, especially if that
- 9 increment happens in the summertime.
- 10 MS. PRAUL: So -- so what is the -- the
- 11 efficiency penalty -- I assume that's that you're
- 12 speaking about, with respect to using the dry
- versus the wet/dry? Is that --
- MR. McFADDEN: No, ma'am. It's not an
- 15 efficiency penalty. And I haven't calculated it
- 16 exactly. It's an output penalty. And the output
- 17 penalty is caused by the raising of the
- 18 backpressure on the steam turbine, and the
- 19 inability to condense the steam at -- at low
- 20 temperature. I cannot tell you for this project
- 21 exactly what it will be, because it involves more
- 22 detailed engineering than I have had the privilege
- of studying. But I can tell you the effect that
- it has on a dry cooled plant that we operate in
- 25 Chinese Camp. And my estimation is that the dry

1 cooler that we have selected for this project is

- 2 even less effective than the one that we have
- 3 installed at Chinese Station.
- 4 In the mitigation plan we propose what
- 5 we called 100 percent/100 percent dry and wet
- 6 cooling. But if you recall, there's a key -- key
- 7 phrase in there, you got to look at the
- 8 temperatures. It's 100 percent dry cooling at 48
- 9 degrees, and it's 100 percent wet cooling at 98
- 10 degrees. And the dry cooler that's designed for
- 11 48 degrees will drop in its ability to condense
- 12 steam rapidly as the temperatures increase above
- 13 48 degrees.
- Now, I can take that back to our Chinese
- 15 Station facility. It is designed to condense the
- 16 equivalent of 22 megawatts of steam at 80 degrees.
- 17 But in its location, and it does have some other
- 18 interference parameters like there's a hillside
- 19 nearby, and the wind affects it, and the towers
- get dirty. But in the summertime, when the
- temperature exceeds 100 degrees, the plant's
- output can be as low as only 11 megawatts.
- 23 So in this plant, I believe that we
- 24 would have to not only reduce the power generated
- by steam, but we would also probably have to back

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off the gas turbines to reduce the power -- to
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- 2 reduce the amount of steam being produced. I
- 3 don't know that for a fact, but I suspect, from my
- 4 experience, that it's true.
- 5 So the amount of output could easily be
- on the order of 75 megawatts, which is a
- 7 substantial proportion of the revenue of a power
- 8 plant. And -- and I, once again, I'm not -- did
- 9 not make those calculations, other than as thumb
- 10 rule calculations from my own experience.
- 11 HEARING OFFICER BOUILLON; Mr. McFadden,
- 12 in response to Chairman Keese's question about the
- 13 -- I believe it was about the existing wells, you
- said they were 750 gallons a minute. Is that
- 15 correct?
- MR. McFADDEN: The -- the well that I
- 17 was talking about when I said that was -- was the
- Burney Mountain power well, yes. I believe that's
- 19 its maximum capacity.
- 20 HEARING OFFICER BOUILLON: But the wells
- 21 that you're proposing to drill, or that the Burney
- 22 Water District is proposing to drill for you, what
- would be the capacity of those wells?
- MR. McFADDEN: I believe the maximum
- 25 capacity of each is 1500 gallons.

1 HEARING OFFICER BOUILLON: So you would

- 2 have 3,000 gallon maximum available for those two
- 3 wells?
- 4 MR. McFADDEN: Yes.
- 5 (Pause.)
- 6 MR. McFADDEN: Mr. Bouillon --
- 7 HEARING OFFICER BOUILLON: Yes.
- 8 MR. McFADDEN: -- may I make a comment
- 9 about your introductory remarks, that there seemed
- to be a chasm between Staff and Applicant?
- 11 HEARING OFFICER BOUILLON: I don't think
- 12 I used the word chasm.
- 13 MR. McFADDEN: I -- I recognize that
- 14 wasn't your exact --
- 15 HEARING OFFICER BOUILLON: And I think
- 16 I'm going to leave that up to your Counsel, if
- 17 you'd like to -- I'm going to offer him the chance
- 18 for redirect --
- MR. McFADDEN: Thank you.
- 20 HEARING OFFICER BOUILLON: -- in a
- 21 moment.
- Ms. Crockett, does our -- do our
- 23 questions suggest any additional cross examination
- 24 to you?
- 25 MS. CROCKETT: Only comments that --

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1	HEARING OFFICER BOUILLON: That
2	MS. CROCKETT: the Burney Resource
3	Group would like to make.
4	HEARING OFFICER BOUILLON: You'll have a
5	chance for comments. That's what the briefs are
6	for.
7	MS. CROCKETT: Well, actually, I could
8	frame them in the way of questions.
9	HEARING OFFICER BOUILLON: No.
10	Ms. Holmes, do you have any questions?
11	MS. HOLMES: Just one.
12	RECROSS EXAMINATION
13	BY MS. HOLMES:
14	Q If the well that currently supplies
15	Burney Mountain Power is used to supply water as
16	mitigation to some affected well owners, does that
17	mean that Burney Mountain Power Project must shut
18	down?
19	A It depends upon how much it takes, but I
20	would say no. We would we would think that we
21	would be able to continue to share the water.
22	Using the excess of Burney Mountain Power's needs
23	over using the excess pumping capacity over

Burney Mountain Power's needs is to provide to the

mitigation, remembering that I think that we have

24

some potential other mitigation available from the

- 2 Burney Water District.
- 3 Q How does the project operate without
- 4 water? I'm not following you.
- 5 A It -- I didn't say it did. I said it
- 6 continues to operate with water, but the amount of
- 7 water available for mitigation from Burney
- 8 Mountain Power would then be reduced by the amount
- 9 of water that Burney Mountain Power is using.
- MS. HOLMES: Thank you.
- 11 PRESIDING MEMBER KEESE: I have one
- 12 additional question.
- What -- what we're talking about,
- 14 although there's disagreement, there's two
- 15 numbers. One is that there would be two feet of
- 16 impact over the 30 years, and one is that there'd
- 17 be five feet of impact over the 30 years.
- 18 On -- you're offering essentially a
- 19 hybrid, which is that you will do the analysis and
- 20 mitigate to the analysis, but that during the
- 21 seven months, or what -- should it be necessary,
- 22 you would offer absolute mitigation and
- 23 substitution. You're -- you're going to
- 24 substitute for anybody's water that they don't
- get, and you're going to mitigate any impact that

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1 takes place.
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- MR. McFADDEN: We're proposing that as a
- 3 safety net. Yes.
- 4 PRESIDING MEMBER KEESE: What would be
- 5 the timeframe for mitigation, and -- and what
- 6 would be -- what would be the standard? Are --
- 7 are you saying that if a well goes down two feet,
- 8 three feet, four feet -- I mean, do we have a --
- 9 do we have a standard like that to decide whether
- 10 you're going to mitigate, and then how -- are you
- 11 -- I would imagine we're assuming that the first
- 12 five feet probably doesn't do any damage. Are you
- saying that as it gets down to two you'll start,
- 14 and you will mitigate before it gets to five,
- 15 or --
- MR. McFADDEN: No. Let me -- let me see
- if I can -- can explain the mitigation --
- 18 PRESIDING MEMBER KEESE: If you get the
- idea of what I'm asking.
- 20 MR. McFADDEN: -- program. Because the
- 21 -- the water -- the water level, I don't -- do not
- 22 believe, and I have had discussions with my water
- 23 experts on this, goes down as an immediate impact
- 24 two feet or five feet, that is a possibility, but
- 25 we believe it to be relatively remote. What we do

1 -- what we do know that we're doing is we're

2 calculating a 30 year draw-down over the life of

3 the project, and we are mitigating based on that

4 calculated draw-down.

Now, the question that I asked my water experts was, if we do the long term impact study and we provide the mitigation that that long term impact study shows and the Conditions of Certification require, and the Energy Commission agrees with, have we solved any potential short term problems, and the answer was yes. So if we conduct the aquifer test and get everything done before commissioning, as we anticipate is the most likely scenario, there is no long term problem, there is no short term problem.

But if you get to the issue of well, suppose we haven't finished this test and we start using water, what happens if there is an immediate impact. And that immediate impact would be somebody's well goes dry, as Ms. Bond said, that the water has dropped below the intake equipment of their -- of their project. And if that's the case, then that's the standard for the immediate safety net mitigation that we propose.

25 PRESIDING MEMBER KEESE: Well, not being

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1 a water expert, are they -- are they going to know
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- it before it happens? I mean, are you going to
- 3 do --
- 4 MR. McFADDEN: Not being a water expert
- 5 -- not being a water expert, I would -- I would
- 6 say that we're -- we're trying to provide a
- 7 mitigation against an unforeseen catastrophic but
- 8 highly unlikely scenario. That's what we're
- 9 trying to prevent with this safety net, trying to
- 10 provide.
- 11 As I said before, we will have
- 12 attempted, certainly, to run a successful aquifer
- 13 test. And the inability to run the aquifer test
- 14 because of the inability to see draw-down in a
- 15 monitoring well will give some -- a higher degree
- of certainty that the immediate impact is not
- 17 likely to happen, as well.
- 18 PRESIDING MEMBER KEESE: Okay. So are
- 19 we talking about you'll -- your -- are you
- 20 proposing, under your concept, that you would
- 21 substitute water within 24 hours, or are you --
- MR. McFADDEN: I -- I think we can do
- that, and I think the word we use, immediately, is
- 24 we'll get it within 24 hours. Yes. And that --
- 25 that certainly is not an issue to be able to do

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1 that with the -- with the residential owners, and
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- if we see that there's a problem with the aquifer
- 3 test we can make longer term preparations with
- 4 respect to the -- to the agricultural also, we
- 5 discussed.
- 6 PRESIDING MEMBER KEESE: Thank you.
- 7 Ms. Holmes, you have some questions?
- 8 MS. HOLMES: Thank you. May I ask the
- 9 questions?
- 10 PRESIDING MEMBER KEESE: Yes, you may.
- 11 FURTHER RECROSS EXAMINATION
- 12 BY MS. HOLMES:
- 13 Q You said that you would, under your
- 14 proposal, you would mitigate any affected well
- owner during the time between the completion of
- 16 the aquifer test and the implementation of the --
- I guess we're calling it the long term or the
- 18 permanent mitigation. Did I understand you
- 19 correctly?
- 20 A Yes, I think that's what I said.
- 21 Q How will you identify who those people
- are? Is it anybody anywhere who says that they've
- lost water in their well?
- 24 A I -- I think that -- I think that we
- 25 would have to restrict it, certainly, to -- to the

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Burney Basin, and I don't have a proposal on the
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- 2 -- on the table right now. I mean, we'd have to
- 3 -- we'd have to narrow it down. I think that the
- 4 calculations that -- that can be done by the water
- 5 experts will show that the area is small. It's in
- 6 the order of -- of a couple of miles, no matter
- 7 what.
- 8 Q Do you --
- 9 A No matter what. But I can't do that
- 10 right now.
- 11 Q Do you believe that you'll know that
- information before you complete the well
- interference report?
- 14 A I believe that we have done a great deal
- of analysis based on the water and the aquifer
- 16 analysis -- aquifer characteristics that are
- 17 available now on isotropic and anisotropic
- analyses so that we'll be able to certainly --
- 19 certainly, in discussions, be able to put a bound
- 20 on it.
- 21 Q Additional discussion will --
- 22 A I think we have to put additional
- 23 discussion on it, because I'm not a -- a technical
- 24 expert to be able to make that statement.
- 25 Q I'm trying to understand. Is it

1 additional discussion, or is it completion of the

- well interference report --
- 3 A Oh, I think it's --
- 4 Q -- that will put a bound on it?
- 5 A -- additional discussion that will be
- 6 able to determine where the very likely impact
- 7 would -- would be limited to.
- 8 MS. HOLMES: Thank you.
- 9 MS. PRAUL: Just one more. Does the
- 10 record contain information that would allow us to
- 11 assess the likelihood that you will show no draw-
- down in the monitoring wells, how many of these
- 13 aquifer tests have been done and how many have had
- 14 to be repeated? I mean, not in this basin, but
- other places.
- MR. McFADDEN: That's -- that's the
- issue at -- at hand, if I may, that brings that
- 18 uncertainty to a fore, and also brings me to the
- 19 -- a little bit to a comment that -- to the part
- of the comments that I was going to make. We're
- 21 not really -- the chasm isn't as big.
- 22 The -- the problem is that the data that
- 23 we have indicates that the volcanic nature of the
- 24 aquifer makes the transmissivity of water -- and
- 25 I'm stepping on the edge of my technical knowledge

here -- very, very rapid, very fast. And it also makes it likely that it does not occur equally in -- in equal impact in equal directions. So that if you have a draw-down in the new project well, either you can -- and you can calculate the -- the location according to some formula, the shape of the draw-down cone may not encompass that well, and you can miss it because you put it out just a

and you can miss it because you put it out just a little bit too far. And apparently you can also miss it because you put it in the wrong direction, because of the anisotropic nature of the -- of the aquifer.

So the situation is you could miss the draw-down that you need to have a satisfactory aquifer test. And one of the things that we've discussed among ourselves and have -- have considered, is drawing up a change to the aquifer test that includes more monitoring wells, so that we don't have that opportunity. If we could find a way to be certain that we could do that aquifer test one time and one time only, and then proceed with the mitigation before the commissioning of the plant, that would provide us with the certainty and the finality that we need.

MS. PRAUL: What's the cost of the

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1 monitoring?
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2 MR. McFADDEN: I do not know. It's not

3 severe.

4 PRESIDING MEMBER KEESE: Let me ask one

5 additional question. The only options for

6 disposing of this water in this quantity are

through storage in a tank, or through use in the

8 plant?

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14

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9 MR. McFADDEN: Or through use in the 10 community, as Mr. Suppa, of the Burney Water

District, pointed out to me, that we would have a

little bit longer and perhaps quite a bit longer

13 run if the aquifer test could be done in -- in the

summertime. It could run longer than 40 hours.

15 PRESIDING MEMBER KEESE: There -- there

is not an option of dropping the river somewhere.

MR. McFADDEN: Not that I'm aware of.

18 PRESIDING MEMBER KEESE: I just -- they

19 tested a -- they tested a well behind my house and

20 it created a culvert in the --

21 MR. McFADDEN: Well, I think that one of

22 the points that Ms. Bond made in her testimony was

that because of the volcanic nature of the --

24 because of the volcanic nature of the -- the soil

in the aquifer it's inappropriate to discharge the

1 water to the ground, especially in this particular

- 2 circumstance.
- 3 PRESIDING MEMBER KEESE: Thank you.
- 4 HEARING OFFICER BOUILLON: Mr. Turner,
- 5 do you have any redirect?
- 6 REDIRECT EXAMINATION
- 7 BY MR. TURNER:
- 8 Q Well, I think, Mr. McFadden, you already
- 9 addressed, in a previous answer, the material that
- 10 you wanted to respond to Mr. Bouillon's opening
- 11 statement. Correct?
- 12 A Yes. I wanted to -- to confirm our
- 13 belief that while we're -- we're maintaining our
- 14 position and the Staff is maintaining their
- position, that with the cooperation that we've had
- over the last few days, and with the Intervenors
- 17 and other parties, as well, I -- I do believe that
- 18 this can be resolved in ample time to stay on the
- 19 schedule we're on now.
- 20 Q And second, Mr. McFadden, in response to
- 21 the question regarding the number of wells within
- 22 the potential impact area, I believe you cited the
- 23 number, you thought there might be 35. Would
- 24 those be predominantly residential wells, that
- 25 number of 35?

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                   Yes, they would. And that was done
 2
         merely from recollection of a -- of pictures that
 3
         we -- that we have in our other testimony. It's
 4
         either in testimony or in the administrative
 5
         record that I looked at, and it -- and it
 6
         encompasses a circular impact area which would be
         based on a -- an isotropic situation.
 8
                   But I believe that in that two mile
         circle there'd be about 35 wells, and, once again
 9
10
         from memory, that could potentially be -- could
11
         potentially be impacted, and almost all of them
12
         were residential. Some of them were no longer in
13
         service.
14
                   PRESIDING MEMBER KEESE: And you would
15
         generally agree with Mr. Hathaway's analysis that
         perhaps two -- two large commercial wells?
16
                   MR. McFADDEN: Yes, I think there's
17
18
         two --
19
                   PRESIDING MEMBER KEESE: Two
20
         agricultural wells.
21
                   MR. McFADDEN: -- two large agricultural
22
         wells, and I believe that those agricultural
         wells, there's evidence that shows that those two
23
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24

25

agricultural wells don't interfere with each

other, so that if there was interference with one

from our test, it's not likely that there'd be

- 2 interference with the other.
- MR. TURNER: That's all I have, Mr.
- 4 Bouillon.
- 5 MS. CROCKETT: I have a direct -- cross.
- I have one other well to add to that. There is a
- 7 community service well.
- 8 HEARING OFFICER BOUILLON: Ask him if
- 9 there is a community service well.
- 10 FURTHER RECROSS EXAMINATION
- 11 BY MS. CROCKETT:
- 12 Q Is there a community service well in
- Johnson Park that could be impacted?
- 14 A I -- I believe in the two mile radius
- 15 that I was discussing, the -- the Johnson Park
- 16 community well was there. And I also believe that
- 17 in that two mile radius the Burney Water District
- 18 -- there's a couple of Burney Water District wells
- 19 at least are in there, too.
- Q Thank you.
- 21 My other cross would be, you stated that
- 22 the equipment that you chose for this hybrid dry
- cooling has a temperature setting of 48 and 98.
- 24 Are those changeable? Would you order it from the
- 25 factory that way, or is there a way the equipment

can be altered during a specific time period to

- 2 run at slightly higher temperatures, less cool
- 3 temperatures, and less warm temperatures?
- 4 A The equipment will run at whatever
- 5 temperature is -- is ambient. But the question
- 6 is, how much cooling will it provide. And -- and
- 7 the equipment is designed in every case for a
- 8 specific operating point. And in the case of
- 9 condensing equipment, that -- that point is
- 10 related to the ambient temperature.
- 11 And so the sizing of the cooler -- and
- 12 I'm sure you recall the many arguments as to
- 13 whether it would or would not fit on the site --
- 14 determines the size of the dry cooler. And we
- 15 have selected the dry cooler size to fit, just
- barely, onto the site, using the 48 degree ambient
- 17 temperature design point.
- Now, it doesn't have to be 48 degrees
- 19 for that dry cooler to do some condensing, but
- 20 it'll do more condensing at lower than 48 degrees
- 21 but considerably less at higher than 48 degrees.
- 22 And similarly, the wet cooler is designed to
- 23 condense all of the steam when the temperature is
- 24 98 degrees. It will condense it all when it is 78
- degrees, but if it goes up to 108 degrees, which

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is the highest recorded temperature ever in
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- 2 Burney, it -- it'll either increase the
- 3 backpressure or it won't condense all the steam.
- 4 Q You're talking about those various
- 5 discussions/arguments on the dry cooling and
- fitting on the property. Do you still have the
- 7 schematic submitted by CURE for 100 percent dry
- 8 cooling that would fit on the property?
- 9 A No. I don't have that drawing.
- 10 MS. CROCKETT: That's my only questions.
- 11 Thank you.
- 12 HEARING OFFICER BOUILLON: Ms. Holmes.
- MS. HOLMES: I have a -- I guess it's
- more of a procedural question. Mr. McFadden has
- 15 made a number of statements about hydrology that
- 16 Staff believes could be clarified, or perhaps even
- 17 corrected, but I -- I don't believe he's
- 18 testifying as an expert witness. So as long as
- 19 those statements cannot be used as expert
- 20 testimony, I think we'll forego any cross.
- Is that -- is that understood?
- 22 HEARING OFFICER BOUILLON: Mr. McFadden
- 23 has testified within the limits of his expertise,
- 24 as stated in his qualifications. And any comments
- 25 he made about hydrology, of course, will be taken

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1 in context.
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- MS. HOLMES: Thank you.
- 3 MR. TURNER: Mr. Bouillon, before he
- 4 steps down, could I just follow up on Ms.
- 5 Crockett's last question regarding the CURE
- 6 schematic?
- 7 HEARING OFFICER BOUILLON: I don't see
- 8 the need to, but if you insist.
- 9 MR. TURNER: I'm not insisting. It's
- 10 your proceeding.
- 11 HEARING OFFICER BOUILLON: I don't -- I
- don't think we need that.
- You can -- you're excused.
- 14 MR. TURNER: Thank you.
- 15 (Inaudible asides.)
- 16 HEARING OFFICER BOUILLON: We will turn
- 17 to the topic of Biological Resources at this time.
- 18 And we've already had the testimony of Maria
- 19 Ellis. At this time we have a Staff witness and
- 20 four witnesses for the Applicant. Burney Resource
- 21 Group has indicated a desire for cross examination
- of all of those witnesses, and the Staff has
- 23 indicated a desire to cross examine only one of
- the Applicant's witnesses.
- 25 Is that still correct?

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1 MS. HOLMES: That's not, and I'd like to
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- 2 point out that we have a representative from the
- 3 U.S. Fish and Wildlife Service today who's
- 4 prepared to testify about what the process for the
- 5 -- where the process for the Biological Opinion
- 6 currently is.
- 7 HEARING OFFICER BOUILLON: That --
- 8 that's Mr. Epanchin?
- 9 MS. HOLMES: Mr. Epanchin. Yes.
- 10 HEARING OFFICER BOUILLON: At this time
- I think we'll take the Applicant witnesses. Mr.
- 12 Garcia -- how many of your witnesses do you have
- 13 here?
- MR. TURNER: We actually have all of our
- 15 witnesses here, Mr. Bouillon. We have Mr. Garcia,
- 16 Ms. Chainey-Davis, Mr. Jackman, and Mr. McFadden,
- who were on the direct Biological testimony, and
- then we have Mr. Sheahan and Mr. Garcia, who are
- on the rebuttal Biological testimony.
- 20 HEARING OFFICER BOUILLON: If -- maybe
- 21 they could all come up as a panel. We'll get some
- 22 more chairs up here.
- 23 And while we're doing that, if I might
- 24 inquire from Ms. Holmes, do you wish the Fish and
- 25 Wildlife person and the Staff person to testify as

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23

a panel?

2	MS. HOLMES: It really doesn't matter.
3	HEARING OFFICER BOUILLON: I don't
4	believe all of these witnesses have previously
5	been sworn. Would those who have not previously
6	been sworn please stand.
7	(Thereupon Ronald Jackman, Carolyn
8	Chainey-Davis, and John Garcia were,
9	by the reporter, sworn to tell the
10	truth, the whole truth, and nothing
11	but the truth.)
12	MR. JACKMAN: I do.
13	MR. GARCIA: I do.
14	MS. CHAINEY-DAVIS: I do.
15	HEARING OFFICER BOUILLON: Mr. Turner.
16	MR. TURNER: Thank you.
17	DIRECT EXAMINATION
18	MR. TURNER: Mr. Garcia, Ms. Chainey-
19	Davis, Mr. Jackman, and Mr. McFadden, did you
20	prepare the direct testimony on Biological

MR. SHEAHAN: Yes.

2000?

MS. CHAINEY-DAVIS: Yes, I did.

Resources, accompanied by eight exhibits, that was

submitted by Three Mountain Power on December 1st,

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1 MR. GARCIA: Yes, I did.
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- MR. McFADDEN: Yes.
- MR. TURNER: To the four of you again,
- 4 was a copy of your individual qualifications
- 5 submitted with that testimony?
- 6 MR. SHEAHAN: Yes, they were.
- 7 MS. CHAINEY-DAVIS: It was.
- 8 MR. GARCIA: That's correct.
- 9 MR. McFADDEN: Yes.
- 10 MR. TURNER: Mr. McFadden, was yours not
- 11 submitted with the Air Resources testimony?
- MR. McFADDEN: That -- that's correct.
- 13 Mine may have been submitted with the Air
- 14 Resources testimony.
- MR. TURNER: Mr. Garcia and Mr. Sheahan,
- 16 did you prepare the rebuttal testimony on
- 17 Biological Resources that was submitted by Three
- Mountain Power on December 7th, 2000?
- MR. SHEAHAN: Yes.
- MR. GARCIA: Yes, we did.
- 21 MR. TURNER: Panel Members together, do
- 22 any of you have corrections or modifications to
- either piece of testimony?
- MS. CHAINEY-DAVIS: I have one
- 25 correction.

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1 MR. TURNER: Would you indicate, Ms.
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- 2 Chainey-Davis, what that is, please?
- 3 MS. CHAINEY-DAVIS: On page 6 of the
- 4 testimony, paragraph --
- 5 MR. TURNER: This is the direct
- 6 testimony you're referring to?
- 7 MS. CHAINEY-DAVIS: To my -- yes, direct
- 8 testimony. Page 6, paragraph 5.
- 9 HEARING OFFICER BOUILLON: If I can find
- 10 -- all right.
- MS. CHAINEY-DAVIS: Okay. Page 6,
- paragraph 5.
- 13 HEARING OFFICER BOUILLON: Yes.
- MS. CHAINEY-DAVIS: First sentence,
- where it says Bellinger's Meadow Foam was found.
- 16 Bellinger's.
- 17 HEARING OFFICER BOUILLON: I'm not --
- or, yes. Two new populations of Bellinger's
- 19 Meadow Foam?
- 20 MS. CHAINEY-DAVIS: Correct. Yes.
- 21 Could you change Bellinger's to Woolly Meadow
- 22 Foam, W-o-l-l-y -- W-o-o-l-l-y. Yeah, W-o-o-l-l-
- 23 y.
- 24 HEARING OFFICER BOUILLON: Two l's and
- 25 two o's.

1 MS. CHAINEY-DAVIS: It's two o's and two

- 2 l's. It trips everybody.
- 3 And then in parentheses, it shows the
- 4 status, and that needs to be changed from a List
- 5 2, CMPS List 2, to a CMPS List 4.
- 6 HEARING OFFICER BOUILLON: I have CMPS
- 7 List 1-B in that sentence.
- 8 MS. CHAINEY-DAVIS: Oh, from a 1-B to a
- 9 4. I'm sorry.
- 10 HEARING OFFICER BOUILLON: To a 4?
- MS. CHAINEY-DAVIS: To a 4. And that's
- 12 it.
- MR. TURNER: Panel, are these
- 14 testimonies true and correct to the best of your
- 15 knowledge?
- MR. SHEAHAN: Yes.
- MR. JACKMAN: Yes.
- MS. CHAINEY-DAVIS: Yes.
- MR. GARCIA: Yes.
- MR. McFADDEN: Yes.
- 21 MR. TURNER: Panel, you're aware that
- 22 Three Mountain Power and CEC Staff entered into a
- 23 stipulation regarding Water and Biological
- Resources on December 7th, 2000, are you not?
- MR. GARCIA: Yes, I am.

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1 MS. CHAINEY-DAVIS: I am.
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- 2 MR. JACKMAN: Yes, I am.
- 3 MR. McFADDEN: Yes.
- 4 MR. SHEAHAN: Yes.
- 5 MR. TURNER: And have all of you
- 6 reviewed that stipulation?
- 7 MR. SHEAHAN: Yes.
- 8 MS. CHAINEY-DAVIS: Yes, I have.
- 9 MR. GARCIA: Yes, we have.
- 10 MR. JACKMAN: Yes.
- MR. McFADDEN: Yes.
- 12 MR. TURNER: Mr. Garcia and Ms. Chainey-
- Davis and Mr. Jackman, do you agree with the
- 14 stipulation's provisions as they relate to
- 15 Biological Resources?
- MR. JACKMAN: Yes, I do.
- MS. CHAINEY-DAVIS: I do.
- MR. GARCIA: Yes, they're agreeable.
- 19 MR. TURNER: Mr. Garcia, are you
- 20 familiar with the final Environmental Impact
- 21 Report prepared for the Hat Creek project?
- MR. GARCIA: Yes, I am.
- 23 MR. TURNER: And is there any
- 24 information in that Environmental Impact Report
- 25 that would cause you to change any of the Panel's

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1 Biological Conclusions regarding Biological
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- 2 Resource impacts of the Three Mountain Power
- 3 Project?
- 4 MR. GARCIA: No, there -- there is not.
- 5 MR. TURNER: And is that based solely on
- 6 your review of the Environmental Impact Report, or
- 7 on additional information, as well?
- 8 MR. GARCIA: No, it is based on my
- 9 review of the impact report, as well as a review
- of how much water is going to be used, as well as
- 11 the testimony provided by Ms. Bond from CEC, and
- by Mr. -- Tom, here, on the amount of water that's
- going to be used and that there would not be a
- 14 significant impact. And therefore, the subsequent
- impact, potential impacts on the springs would not
- 16 be there.
- 17 MR. TURNER: Again, Mr. Garcia, based on
- 18 your review of the Environmental Impact Report,
- 19 your familiarity with the Three Mountain Power
- 20 Project, including the testimony that you just
- 21 referenced of Ms. Bond yesterday, and Mr. Sheahan
- 22 today, in your opinion, does the Environmental
- 23 Impact Report for the Hat Creek project indicate
- 24 any additional new significant cumulative impact
- on Biological Resources that would occur if the

1	Hat	Creek	project	were	to	be	approved?

- 2 MR. GARCIA: In my opinion it does not.
- 3 MR. TURNER: And, finally, similarly in
- 4 your opinion, does the Hat Creek project EIR
- 5 indicate that any cumulative impact of the Three
- 6 Mountain Power Project will be substantially more
- 7 severe were the Hat Creek project to be approved?
- 8 MR. GARCIA: No, it -- it doesn't have a
- 9 significant impact if it was approved.
- 10 MR. TURNER: There would be no
- 11 substantially more severe impact, in your opinion?
- 12 MR. GARCIA: There would substantially
- be no -- no additional severe impact.
- MR. TURNER: Mr. Bouillon, this Panel is
- 15 available for cross examination.
- 16 HEARING OFFICER BOUILLON: Ms. Crockett?
- MS. CROCKETT: I would defer to Staff,
- in case they have the same questions I would have.
- 19 HEARING OFFICER BOUILLON: Does Staff
- have any questions?
- MS. HOLMES: No questions.
- 22 MS. CROCKETT: And at this time Burney
- 23 Resource Group has no questions. You have more
- time on your schedule.
- 25 HEARING OFFICER BOUILLON: All right.

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We'll mark their -- well, their testimony has

1

21

22

23

24

2	already been marked. Are you offering it as
3	MR. TURNER: I would move its
4	introduction into evidence, Your Honor.
5	HEARING OFFICER BOUILLON: Based on a
6	lack of cross examination, it will be accepted.
7	You're excused.
8	MR. TURNER: Thank you very much.
9	HEARING OFFICER BOUILLON: Thank you all
10	very much. I hope you had a nice trip up here.
11	(Laughter.)
12	HEARING OFFICER BOUILLON: Staff.
13	MS. HOLMES: Staff's witness is Linda
14	Spiegel. Would you like to call
15	HEARING OFFICER BOUILLON: I think we'll
16	call them together.
17	MS. HOLMES: And so then we'd also call
18	Peter Epanchin of the U.S. Fish and Wildlife
19	Service.
20	(Thereupon Linda Spiegel and

MS. HOLMES: Would each of you please

the truth.)

Peter Epanchin were, by the

reporter, sworn to tell the truth,

the whole truth, and nothing but

1 clearly state your names for the record, spelling

- your last name?
- 3 MR. EPANCHIN: My name is Peter
- 4 Epanchin. The last name is spelled E-p-a-n-c-h-i-
- 5 n. I'm with the U.S. Fish and Wildlife Service.
- 6 MS. SPIEGEL: Linda Spiegel, S-p-i-e-g-
- 7 e-l. I'm with the Energy Commission.
- 8 TESTIMONY OF
- 9 LINDA SPIEGEL
- 10 called as a witness on behalf of Commission Staff,
- 11 having first been duly sworn, was examined and
- 12 testified as follows:
- 13 DIRECT EXAMINATION
- 14 BY MS. HOLMES:
- 15 Q Ms. Spiegel, did you prepare the
- 16 Biological Resources testimony that's contained in
- 17 the FSA, Part 3, which has been identified as
- 18 Exhibit 65?
- 19 A Yes.
- 20 Q Were your qualifications included in
- 21 that?
- 22 A Yes.
- Q Do you have any corrections to your
- testimony?
- 25 A Yes, I do.

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1 Q Why don't you walk us through them?
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- 2 A I actually have a replacement for a
- 3 couple of paragraphs on page 46. And I have those
- 4 written out, and we can -- these changes don't
- 5 change the analysis at all. It just provides some
- 6 clarification on some -- on some problems when I
- 7 was editing the -- the -- an original version of
- 8 this manuscript.
- 9 Q Do you have any corrections in addition
- 10 to those identified on the pages that have been
- 11 handed out?
- 12 A Yeah. On page 41 --
- 13 HEARING OFFICER BOUILLON: Excuse me a
- moment, before we go on to that, page 41.
- Ms. Crockett, with regard to page 46,
- have you had a chance to examine these changes?
- MS. CROCKETT: No. I'm comfortable with
- 18 this comment.
- 19 HEARING OFFICER BOUILLON: Go on, page
- 20 41.
- 21 THE WITNESS: Page 41, the third
- 22 paragraph, last sentence, that begins with Crystal
- 23 Lake Springs. Crystal Lake Springs located in the
- 24 Hat Creek subdrainage and supports one of five
- 25 remaining -- that should be seven.

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1
                   HEARING OFFICER BOUILLON: One of -- one
 2
         of the seven remaining?
 3
                   THE WITNESS: One of seven.
                   MS. CROCKETT: Are we on page 41?
 5
                   THE WITNESS: Yes. Third paragraph --
 6
                   MS. CROCKETT: Okay.
                   THE WITNESS: -- last sentence.
 8
                   MS. CROCKETT: Thank you.
 9
                   THE WITNESS: And then on the same page,
10
         the last paragraph, where it says Garcia and
         Associates 2000, and in. "In" should be deleted.
11
                   Page 47, second full paragraph, second
12
13
         to the last sentence, starting with Crystal Lake
14
         supports one of the five, that should be seven.
15
                   Page 50, second paragraph -- let's see,
         one, two, three, four, five, six, seven, eight --
16
17
         eight line -- eighth line down, where it says
18
         constructing a successful signal crayfish barrier
19
         could be an increase. Just "be an" should be
         deleted.
20
21
                   Then that same paragraph, next two or
22
         three sentences, where it begins after
         discussions, that -- the rest of that -- beginning
23
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should be deleted.

at after discussions to the end of that paragraph

24

1 MS. CROCKETT: Would you repeat that,

- 2 please?
- 3 THE WITNESS: That same paragraph that
- 4 we were in a minute ago, okay. If you go down to
- 5 where the sentence beginning after discussions,
- 6 from beginning there to the rest -- to the end of
- 7 that paragraph should be deleted.
- 8 HEARING OFFICER BOUILLON: You're
- 9 talking about everything in that paragraph after
- 10 the figure \$250,000.
- 11 THE WITNESS: Yes. That's all.
- 12 BY MS. HOLMES:
- 13 Q That concludes your corrections? With
- 14 those corrections are the facts in your testimony
- true and correct to the best of your knowledge?
- 16 A Yes.
- 17 Q And do the opinions contained in your
- 18 testimony represent your best professional
- 19 judgment?
- 20 A Yes.
- 21 MS. HOLMES: We'll forego the need for a
- 22 summary, and simply make the witness available for
- 23 cross examination. Unless you'd like to move to
- Mr. Epanchin and have them testify at the same
- 25 time.

1	MR.	EPANCHIN;	Ι	so	far	haven'	t

- 2 submitted any testimony. We're -- Fish and
- 3 Wildlife Service will be presenting a Biological
- 4 Opinion.
- 5 MS. HOLMES: Perhaps I could ask him a
- 6 few questions to sort of lay the foundation for
- 7 what he might say.
- 8 TESTIMONY OF
- 9 PETER EPANCHIN
- 10 called as a witness on behalf of Commission Staff,
- 11 having first been duly sworn, was examined and
- 12 testified as follows:
- 13 DIRECT EXAMINATION
- BY MS. HOLMES:
- 15 Q What's your responsibility within U.S.
- 16 Fish and Wildlife Service?
- 17 A I review projects as they come in.
- 18 Geographically the Three Mountain Power Project is
- in my area that I review.
- 20 Specifically, I review the projects and
- 21 their potential effects to endangered species,
- federally endangered species.
- 23 Q And do you have a responsibility with
- 24 U.S. Fish and Wildlife Service with respect to the
- 25 Three Mountain Project?

1 A Yes. They've initiated consultation,

- 2 and I am going to be -- I have been preparing a
- 3 Biological Opinion, which will authorize take of
- 4 the Shasta crayfish and the Bald Eagle and
- 5 Northern Spotted Owl.
- 6 Q And have you read the testimony of Linda
- 7 Spiegel?
- 8 A I have.
- 9 Q And with respect to those issues that
- 10 are of concern to the U.S. Fish and Wildlife
- 11 Service within her testimony, would you generally
- 12 agree with her conclusions?
- 13 A Yes.
- 14 Q My understanding is that Ms. Spiegel has
- included in her testimony certain what she refers
- 16 to as mitigation measures that are designed to
- 17 protect endangered species. In addition, I
- 18 believe that the Applicant included those are
- 19 project features in its Biological Assessment. Is
- 20 that correct?
- 21 A Yes.
- 22 Q And are those, whether you refer to them
- as mitigation measures or project features, that
- are designed to minimize impacts to species, do
- 25 you believe that those will be sufficient to allow

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1 the U.S. Fish and Wildlife Service to issue a
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- 2 Biological Opinion for the project?
- 3 A We will authorize take for the project.
- We don't, I guess, see the -- we don't -- we don't
- 5 -- in consultation, we don't have projects that
- 6 will -- I guess you can't mitigate away the
- 7 effects. We still have to authorize take.
- 8 Though Ogden has done well by going from
- 9 a -- the original proposed project design to a
- 10 wet/dry hybrid, the highest level of protection to
- 11 the aquatic resources would be achieved through a
- dry cooling system, we will be authorizing take,
- as the project stands, in our Biological Opinion
- 14 for the Shasta crayfish.
- MS. HOLMES: Thank you. With that, then
- both witnesses are available for cross
- 17 examination.
- 18 HEARING OFFICER BOUILLON: Before we
- 19 begin, Mr. Epanchin, when will your Biological
- Opinion be issued? Do you have a date yet?
- 21 MR. EPANCHIN: The date that it's due is
- January 11th. It's based on --
- 23 HEARING OFFICER BOUILLON: And do you
- 24 expect to meet that date?
- MR. EPANCHIN: -- on -- it's based on

1 135 days after we receive consultation, or request

- 2 for consultation.
- 3 HEARING OFFICER BOUILLON: And do you
- 4 expect to meet that date?
- 5 MR. EPANCHIN: Trying hard.
- 6 HEARING OFFICER BOUILLON: Mr. Turner,
- 7 do you have any questions?
- 8 MR. TURNER: No, I have no questions for
- 9 either witness.
- 10 HEARING OFFICER BOUILLON: Ms. Crockett.
- MS. CROCKETT: Yes, thank you.
- 12 CROSS EXAMINATION
- 13 BY MS. CROCKETT:
- 14 Q Mr. Epanchin, would you clarify what
- authorizing a take for the operation means?
- 16 A Sure. Part of the Biological Opinion
- 17 authorizes -- we issue an incidental take
- 18 statement that is written in to the Biological
- 19 Opinion, and what that will be is we -- we won't
- 20 be authorizing take of -- of individual Shasta
- 21 crayfish. We won't be saying yes, you have -- you
- 22 can kill so many crayfish. That's not -- we don't
- 23 anticipate that form of take to occur.
- 24 The type of take that -- that we will be
- 25 issuing is habitat modification in the form of

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1 spring discharges, or changes to those springs.
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- 2 Right now it's based on the analysis as presented
- in the FSA, as well as the Biological Assessment.
- WE're looking at changes on the -- in the
- 5 neighborhood of one to two percent, so that's what
- 6 we will be authorizing take, for habitat
- 7 modifications, one to two percent of changes to
- 8 the spring discharges.
- 9 Q So my question would be, then, you
- 10 expect minimal, but some impact to the springs?
- 11 A Correct.
- 12 MS. CROCKETT: Thank you. I may be
- asking some more questions.
- Going over the FSA, Ms. Spiegel, there's
- 15 a lot of questions.
- 16 CROSS EXAMINATION
- 17 BY MS. CROCKETT:
- 18 Q Starting on page 39, bullet number 3.
- 19 You expect some habitat degradation from the power
- 20 plant, and that would fully line up with Mr.
- 21 Epanchin's statement. Is that correct?
- 22 A The habitat degradation from the power
- 23 plant use, the water use would be included in
- 24 that. That's --
- 25 Q So you do anticipate some habitat

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1 degradation?
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- 2 A No, I -- what I'm saying here is that
- 3 the reduction in spring flow would fall under that
- 4 -- that heading of habitat degradation.
- 5 Q Okay. Turning the page to 40. How much
- 6 -- actually, you just answered that question, as
- 7 well.
- 8 You stated -- I'm moving to page 41.
- 9 You stated that there was a cursory level of the
- 10 survey protocols. How complete or incomplete do
- 11 you feel the survey levels were?
- 12 A Well, the surveys for the terrestrial,
- most were not conducted, and it says so in the
- 14 Biological Assessment, or the survey that the --
- 15 the results of the spring survey in the Ganda
- 16 Report.
- So to the extent that they were not --
- 18 they were not conducted at the appropriate time of
- 19 year. The -- they did not have permits for -- to
- 20 conduct surveys for the -- for the crayfish, so
- 21 they based their surveys there on suitability of
- 22 the habitat. And just visual, visually looking.
- 23 Q Just visual.
- 24 Page 46, third paragraph -- or second
- 25 paragraph, second full paragraph, first line. You

have -- everyone has stated, and you've reiterated

- 2 here, difficult to quantify from the cumulative
- 3 impacts, but Mr. Epanchin just stated maybe a one
- 4 to two percent decrease in the spring discharge.
- 5 Are you comfortable with that evaluation?
- 6 A No. The one to two percent is based on
- 7 Three Mountain Power's use alone. Not the
- 8 cumulative impact.
- 9 Q Okay. Since the springs already exist
- 10 with the summer use and consumptive use, summer
- impacts of consumptive use and habitat has
- 12 adjusted to this 34 percent reduction in flow, the
- 13 additional one or two percent on top of that would
- 14 be considered insignificant.
- MS. HOLMES: I'm sorry. Are you reading
- 16 from her testimony somewhere? Could you please
- point us to --
- MS. CROCKETT: No, I'm in the same
- 19 paragraph, just kind of condensing what she has
- 20 said to ask my question.
- 21 MS. HOLMES: Okay. Can you restate the
- 22 question, please?
- MS. CROCKETT: Okay.
- 24 HEARING OFFICER BOUILLON: Ms. Crockett,
- if I might inquire. Are you on the new page 46?

1 MS. CROCKETT: No -- oh. No, I'm on the

- old page 46. Thank you.
- 3 BY MS. CROCKETT:
- 4 Q The last line you have under the third
- 5 paragraph, third full paragraph, that you have
- 6 underlined, where it says however, summer flows.
- 7 The second full paragraph, and you have it
- 8 underlined. Would additional use have a
- 9 significant impact on those reductions?
- 10 MS. HOLMES: I'm going to object to that
- 11 question, to the extent that it's asking for
- 12 hydrologic conclusions. I believe that Ms.
- 13 Spiegel's testimony took the conclusions of
- 14 Staff's Water testimony as a given. She's not
- 15 qualified to ask about additional hydrologic
- 16 impacts.
- 17 So to the extent that the question is
- 18 asking for -- it's based on a hypothetical about
- 19 hydrological issues, I would -- I would have to
- 20 object to it.
- 21 HEARING OFFICER BOUILLON: Since it is
- 22 in her testimony I'm going to allow the witness to
- 23 say she's not qualified to answer that question.
- And if that's so, that is an appropriate answer.
- MS. SPIEGEL: Well, quite frankly, I

don't really understand her question.

- 2 (Laughter.)
- 3 HEARING OFFICER BOUILLON: I wasn't sure
- I understood it either, which is why I left it to
- 5 you.
- 6 BY MS. CROCKETT:
- 7 Q Mr. Epanchin states that there may be a
- 8 one to two percent reduction in spring flow. He
- 9 stated that just moments ago. And we're looking
- 10 at a 70 -- a 67 percent reduction in spring flow
- during summer flows, during drought.
- 12 Would the additional one to two percent
- reduction in spring flow affect the biota of those
- 14 springs?
- 15 A Well, okay. I still think you're
- 16 getting a few of the things confused. The one and
- 17 two percent deal with reductions from Three
- 18 Mountain Power use alone, one percent during
- 19 normal hydrological year, rain years; the second,
- 20 during drought years. That's just them.
- 21 But you're in the cumulative impact
- 22 section, and what I did there was -- and I did use
- 23 Linda Bond's water analysis to come up with this.
- 24 And the -- the percent reduction in flows would be
- dependent on the amount of water in an aquifer at

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1 any given time. Okay. And when you have a
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- 2 drought, that number goes down. And then when you
- 3 have a prolonged drought, that number goes down
- 4 for longer and less.
- 5 And so any -- Three Mountain Power's
- 6 use, as well as any water use in that area would
- 7 cumulatively contribute to reduction in the flows.
- 8 And Three Mountain Power's use, according to our
- 9 Staff, Water Staff analysis, was determined to be
- 10 three percent of the consumptive use. So you can
- 11 say proportionately it would have that reduction
- 12 in flow of -- if you looked at it for consumptive
- 13 use total flow.
- 14 Q Thank you. And then moving right down
- to the following paragraph, on new page 46, you
- 16 make the comment that thereby exasperating --
- 17 exacerbating an already stressed ecosystem. Could
- 18 you clarify that?
- 19 A Well, that's just what I'm -- I said.
- In other words, when you have a drought and you
- 21 have low flows, and your consumptive use is here
- 22 but your -- but your availability's going down,
- 23 then you're going to exasperate -- any consumptive
- use by anybody's going to exasperate that
- 25 situation.

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1 Q And would you clarify, on page 47,
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- 2 second -- first full paragraph, the last sentence.
- 3 Why would these isolated island populations be at
- 4 higher risk?
- 5 A Because any --when you have an isolated
- 6 population and you -- you're dealing with a
- 7 species that's not necessarily, you know, it
- 8 doesn't have long dispersal movements, like these
- 9 terrestrial mollusks is what I'm referring to
- 10 here, aquatic and terrestrial mollusks is what I'm
- 11 referring to here, you don't have the immigration,
- 12 you don't have the gene flow. If -- if you -- if
- you reduce a population within a given area down
- 14 too small you -- it may take longer for that to
- infill back again. Does that --
- 16 Q And then we're talking about Crystal
- 17 Lake in the following paragraph. And you state at
- 18 the last sentence of that paragraph that you feel
- 19 that any threat to the Crystal Lake spring could
- 20 be a significant cumulative impact. Am I reading
- 21 that correctly?
- 22 A Oh, I didn't say any. I just said
- 23 threat to the spring --
- Q Threat.
- 25 A -- would be a significant cumulative

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1 impact.
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- Q Under operation on page 49, would you

 elaborate on the -- the second paragraph, the last

 part of the last sentence from the comma forward,
- 5 where it starts the new pumping.
- 6 A Well, as my -- as I said in my analysis,
- 7 that the cumulative impact that I just described
- 8 has the potential to be a significant adverse
- 9 impact during severe drought and prolonged
- 10 drought.
- 11 Q Somewhere in your paper, and I may have
- 12 it here, you talk about droughts. I have it
- 13 highlighted. You feel that the concept of a five
- 14 year drought is not accurate. Would you elaborate
- on that?
- 16 A Well, the concept of a five -- it's not
- 17 necessarily the concept.
- 18 Q The longest --
- 19 A Right. There's -- there's a --
- Q It's at the bottom of your new page 46.
- 21 A Right. There is -- there's a figure in
- 22 the water analysis section that has water data
- from I believe starting in 1905 or something. And
- in -- throughout that time, it shows a period of
- 25 three or so years of lower than normal --

1	subsequent	lower	than	normal	rainfall	years.

- 2 And one of them was pretty long. The
- 3 five year drought was not the longest one on
- 4 record that -- that we have in that graph.
- 5 MS. CROCKETT: Thank you. I think covers
- 6 my questions for the witness.
- 7 HEARING OFFICER BOUILLON: Ms. Holmes,
- 8 any redirect?
- 9 MS. HOLMES: No.
- 10 HEARING OFFICER BOUILLON: Would you
- 11 care to offer those sections of the FSA?
- MS. HOLMES: Yes.
- 13 HEARING OFFICER BOUILLON: Any
- 14 objection?
- MS. CROCKETT: No objection.
- 16 HEARING OFFICER BOUILLON: It will be
- 17 admitted.
- 18 (Thereupon the Biological Resources
- 19 testimony portion of Exhibit 65 was
- 20 received into evidence.)
- 21 HEARING OFFICER BOUILLON: The witnesses
- 22 may be excused, I think. Any reason they should
- 23 not be?
- You are excused. Thank you very much.
- 25 (Inaudible asides.)

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1 MS. CROCKETT: No, I was looking at my
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- watch, saying I can get some shopping done.
- 3 HEARING OFFICER BOUILLON: This will
- 4 conclude the hearing.
- We are going to take the motion of the
- 6 Burney Resource Group under submission based upon
- 7 the evidence we've heard in the last two days
- 8 about their request for a delay in the hearings,
- 9 and continued hearings, based upon the Hat Creek
- 10 project. We will review the transcripts and issue
- 11 a ruling on that request.
- 12 In the meantime, and to assist us in
- making that ruling, we're going to request
- 14 briefing from the parties on those issues they
- 15 feel necessary to brief. I'm not talking about
- 16 every topic in Parts 2 and Part 3. But on those
- topics where any party feels briefing would be
- helpful to the Committee, we would appreciate it.
- 19 MS. CROCKETT: Only related to Hat
- 20 Creek.
- 21 HEARING OFFICER BOUILLON: What?
- MS. CROCKETT: Only related to Hat
- 23 Creek.
- 24 HEARING OFFICER BOUILLON: And this will
- 25 be on all of the issues, not just the cumulative

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1 effect of the Hat Creek project.
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- In that regard, given the holidays

 coming up within the week and the following week,

 we're going to request that the briefs be filed -
 be postmarked on or before January 9, which is a

 Tuesday, and that reply briefs be filed on or

 before January 17th -- not filed, but postmarked,
- 8 also.
- 9 That will enable everybody to review the
 10 transcript and get those briefs out. If there are
 11 significant delays in getting the transcripts, we
 12 might have to consider changing the dates for
 13 those briefs. But I think that should allow us
 14 sufficient time.
- 15 At that -- after receipt of those
 16 closing briefs, we'll issue an order about the
 17 need for continued hearings.
- MS. CROCKETT: Question on

 19 clarification. The briefing would also take in

 20 the Water Conditions of Certification for the well

 21 impact, that would be the possible continuation on

 22 that area, or has that been decided? We are

 23 unclear on that.
- 24 HEARING OFFICER BOUILLON: The briefing
 25 will include issues of interest to you regarding

1 everything that's been talked about in the last

- 2 two days.
- 3 MS. CROCKETT: Okay.
- 4 HEARING OFFICER BOUILLON: Okay? Now,
- 5 it would not be worth your time to spend time
- 6 briefing the topics we took by way of stipulation,
- 7 where there is no argument about the evidence.
- 8 MS. CROCKETT: Right.
- 9 HEARING OFFICER BOUILLON: But for all
- of the topics that are -- that are controversial,
- 11 where you have a position that is not in complete
- 12 agreement with either the Staff or the Applicant,
- you should brief those issues.
- MS. CROCKETT: Okay.
- 15 HEARING OFFICER BOUILLON: And we're
- 16 talking about argument. Now you get to say
- 17 anything you want.
- 18 (Laughter.)
- 19 HEARING OFFICER BOUILLON: You don't
- 20 have to ask questions anymore. But you should --
- 21 those briefs should make citations to the record
- where available, and you will have the transcript.
- 23 And so if you want to talk about somebody's
- 24 testimony, you should refer that either to the
- 25 document by exhibit number, and page number, or to

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1 the transcript by page number.
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- MS. CROCKETT: Since --
- 3 HEARING OFFICER BOUILLON: You'll have
- 4 that transcript before you need to supply your
- 5 brief.
- 6 MS. CROCKETT: It is my understanding,
- 7 and I need clarification as being new at this, and
- 8 I do apologize, that the brief will only adhere to
- 9 what's been established in testimony in areas of
- 10 evidence, only those particular things that are
- 11 available to all parties.
- 12 HEARING OFFICER BOUILLON: That's
- 13 correct.
- MS. CROCKETT: Thank you.
- MR. ZISCHKE: And actually, to clarify
- 16 that, what we should be briefing from is what has
- 17 been -- not just what's been available to the
- 18 parties, but what's actually been introduced into
- 19 testimony in these hearings, like the -- the
- 20 numbered testimony, the transcripts, and -- is
- 21 that correct?
- 22 HEARING OFFICER BOUILLON: That --
- that's correct. What we have are 83 exhibits,
- 24 which comprise both the testimony and documents
- used to support that testimony.

1	MS.	CROCKETT:	Okay.
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- 2 HEARING OFFICER BOUILLON: That's what
- 3 you will rely on, plus the transcript of the oral
- 4 proceedings we've had, which will be prepared by
- 5 the court reporter and you'll be given a copy of
- 6 that.
- 7 MS. CROCKETT: Understood.
- 8 HEARING OFFICER BOUILLON: That's what
- 9 you will limit yourself to by way of facts. By
- 10 way of argument, that's when you --
- MS. CROCKETT: Thank you.
- 12 HEARING OFFICER BOUILLON: But based on
- 13 fact.
- MS. CROCKETT: Only on fact. Thank you.
- 15 HEARING OFFICER BOUILLON: And it's my
- 16 understanding that as part of the testimony of the
- 17 Applicant that it incorporated the appropriate
- 18 portions of the FSA also. Is that correct, Mr.
- 19 Zischke? That when we --
- 20 MR. ZISCHKE: The Final Staff
- 21 Assessment? The AFC.
- 22 HEARING OFFICER BOUILLON: The AFC. I'm
- sorry, the AFC.
- MR. ZISCHKE: Yes, that's correct.
- 25 HEARING OFFICER BOUILLON: As modified

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1 through subsequent -- at least one modification to
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- the AFC.
- 3 And by now we should have admitted all
- 4 parts of -- all three parts of the FSA.
- 5 MS. HOLMES: That's my understanding.
- 6 HEARING OFFICER BOUILLON: And the
- 7 Committee will ask for a stipulation from all of
- 8 the parties that all parts of the FSA are deemed
- 9 admitted, Parts 1, 2, and 3, and all the testimony
- 10 contained therein, as well as the Application for
- 11 Certification as amended, and all of the
- 12 Applicant's written testimony, and all of the
- 13 Burney Resource Group's testimony which has been
- 14 referred to in these proceedings. Just in case we
- missed something.
- You so stipulate, Mr. Zischke?
- MR. ZISCHKE: We agree. Yes.
- MS. CROCKETT: We agree.
- MS. HOLMES: We agree, but we note that
- 20 Staff filed at least one or two other documents in
- 21 addition to the FSA, so as long as the stipulation
- includes those documents, as well --
- HEARING OFFICER BOUILLON: Yes.
- MS. HOLMES: -- we agree.
- 25 HEARING OFFICER BOUILLON: Everything --

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1 everything that has been marked has been admitted,
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- with the sole exception as to Exhibit 74, which is
- 3 the expanded chart of table -- I believe Table 3.
- 4 MR. ZISCHKE: And two clarifying
- 5 questions. I'm not sure there's any reason to
- 6 brief any Part 1 topics that were heard before,
- 7 but this is briefing on the hearings as a whole,
- 8 including the hearings that were held last March
- 9 on Part 1. Correct? I mean, this is -- this is
- 10 briefing leading up to the proposed -- the
- 11 Presiding Member's Proposed Decision, so -- and
- 12 I'm not suggesting that there's briefing that
- 13 needs to occur. I just want to clarify so
- 14 everyone's clear, this is not limited to the last
- 15 two days of hearings. This is based on the record
- leading up to the decision.
- 17 HEARING OFFICER BOUILLON: It was my
- intention to limit it to the last two days of
- 19 hearings, with regard to the FSA Part 2 and Part 3
- 20 topics, including some which were reopened from
- 21 Part 1. For those topics that were concluded and
- 22 not reopened, I did not intend to ask for any
- 23 briefing. It was the Committee's --
- MR. ZISCHKE: That's fine. Fine.
- 25 HEARING OFFICER BOUILLON: -- feeling

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1 after those hearings that we did not --
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- 2 MR. ZISCHKE: I just wanted to --
- 3 HEARING OFFICER BOUILLON: -- need any
- 4 briefing.
- 5 MR. ZISCHKE: -- okay, that's fine. I
- 6 understand that, and that makes sense.
- 7 Is there a complete exhibit list? I'm
- 8 not --
- 9 (Laughter.)
- 10 HEARING OFFICER BOUILLON: I don't
- 11 believe -- the Project Secretary will be preparing
- one, and through Mr. Buell we will make it
- available to all the parties. And I will work
- 14 with the Project Secretary to make sure that she
- 15 gets it out. And I would give you copies of mine,
- 16 but --
- 17 MR. ZISCHKE: No, that's great. Thank
- 18 you.
- 19 HEARING OFFICER BOUILLON: -- it would
- not be very helpful at the moment.
- 21 MR. ZISCHKE: And if there is a
- 22 stipulation among the parties on Conditions, we
- 23 would submit that with a request to reopen the
- 24 record for the limited purpose of introducing that
- 25 stipulation, if that occurs.

1	HEARING OFFICER BOUILLON: If if you
2	feel that's necessary. If the facts are in the
3	record, and you both or all three come to a
4	similar conclusion about what those conditions
5	would be, and we don't need any additional facts,
6	there's really no need to reopen the record.
7	MR. ZISCHKE: It could simply be covered
8	in some other filing. In the brief, or whatever.
9	Thank you.
10	HEARING OFFICER BOUILLON: And hopefully
11	you can do that through the briefing process. I
12	encourage you to continue to work together.
13	We will adjourn the hearing at this
14	time. Mr. Keese.
15	PRESIDING MEMBER KEESE: And just thank
16	you for everybody for your participation. This
17	has been a believe it or not, this has been an
18	enjoyable hearing process. We we have some
19	cases that are not.
20	(Thereupon the Hearing was
21	<pre>concluded at 3:13 p.m.)</pre>
22	
23	
24	
25	

CERTIFICATE OF REPORTER

I, VALORIE PHILLIPS, an Electronic

Reporter, do hereby certify that I am a

disinterested person herein; that I recorded the

foregoing California Energy Commission Evidentiary

Hearing; that it was thereafter transcribed into

typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said Hearing, nor in any way interested in the outcome of said Hearing.

IN WITNESS WHEREOF, I have hereunto set my hand this 29th day of December, 2000.

VALORIE PHILLIPS

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